



## DOCTOR OF EDUCATION (EDD)

### **Teacher Perceptions Of The Development Of One School's Own Concept-Based Curriculum Programme And Its Intended and unintended Outcomes A Case Study Of An International Baccalaureate World School in the United Arab Emirates**

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**TEACHER PERCEPTIONS OF THE DEVELOPMENT OF ONE SCHOOL'S  
OWN CONCEPT-BASED CURRICULUM PROGRAMME AND ITS INTENDED  
AND UNINTENDED OUTCOMES**

**A CASE STUDY OF AN INTERNATIONAL BACCALAUREATE WORLD  
SCHOOL IN THE UNITED ARAB EMIRATES**

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A thesis submitted for the degree of Doctor of Education

University of Bath

Department of Education

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I hereby declare that this thesis, submitted in partial fulfillment of the requirements for the degree of Doctor of Education, contains no material previously published or written in any medium by another person, except where appropriate reference has been made.



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Sudha Govindswamy Sunder

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## **ABSTRACT**

Through a singular case study, this research enquiry seeks to explore teacher perceptions about the development of a concept-based curriculum program (called as the Conceptual Curriculum by the school), in the context of an International Baccalaureate (IB) World school in the Middle East, and the intended and unintended outcomes of the initiative. The study employs Bernstein's (1975) theories of classification and framing, and curriculum recontextualization, as an analytical framework to interpret findings. The study is informed through methods such as reading and analyzing of curriculum documents, conducting semi-structured interviews, and the distribution of a web-based questionnaire to teachers.

Findings in this research inquiry revealed that, though teachers expressed the experience of creating and delivering the Conceptual Curriculum as sometimes being challenging and frustrating, a vast majority of the teachers prefer a flexible curriculum framework versus a prescriptive curriculum. However, findings also revealed that, though teachers seem to enjoy the freedom and flexibility of working with broad curricular frameworks as opposed to prescriptive curricula, there seem to be some fundamental questions pertinent to curriculum recontextualization remaining unanswered, for which perhaps teachers seek answers from qualified curriculum development personnel. Findings reveal that when broad curricular frameworks get recontextualized, the lack of consensus amongst teachers on what counts as essential knowledge is often a matter of concern.

Findings reveal that in curriculum recontextualization, when having to negotiate between a "multiplicity of pedagogic fields" (Cambridge, 2011, p. 129) teachers seem to be inherently aligning to something that is a "crystal clear benchmark" such as the International Baccalaureate Diploma Programme (IB DP), as opposed to something that is more flexible and open-ended such as the International Baccalaureate Primary Years Programme (IB PYP). The disciplinary focus of the Conceptual Curriculum and the tendency of teachers

to align more towards the IB DP rather than the IB PYP (even in lower grades such as 7 and 8) has thus resulted in a quick transition from the “weakly classified” (Bernstein 1971, p.49) inter-disciplinary IB PYP curriculum to a “strongly classified” (Bernstein 1971, p.49) Conceptual Curriculum with disciplinary focus.

Findings from this study reveal that teachers see the value and purpose in teaching for conceptual understanding, but this, when coupled with having to choose curriculum content and developing a coherent curriculum has made the experience both challenging and burdensome for them. Findings also reveal that practical agendas of the school, such as addressing limited time and staffing issues assume priority over lofty ideals when the curriculum is recontextualized, thereby indicating that school-based curriculum initiatives lose rigor and form, in the cracks of everyday practice.

Findings in this study thus suggest that when teachers are offered the possibility of working with flexible curricular frameworks, realities of everyday practice take over. This often leads to teachers self-prescribing the curriculum, thereby making the process self-mandated, which in effect defeats the very purpose of the school-based curriculum development initiative undertaken.



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## **CHAPTER 1 - INTRODUCTION**

### **1.1 Setting the Stage**

The International Baccalaureate (IB) is a non-profit educational foundation that was founded in Geneva, Switzerland, in 1968. The IB's notion of an "education continuum" that enables a "continuous international educational experience from early childhood to school graduation" became a reality with the establishment of the IB Primary Years Programme (IB PYP) in the year 1997, for students aged 3-11, to add to the two previously existing IB Programmes: the IB Diploma Programme (IB DP) for students aged 16-19 and the IB Middle Years Programme (IB MYP) for students aged 11-16 (IB, 2014). Being authorized by the IB to offer any one of the IB programmes qualifies a school to be called an "IB World School" (IB, 2014). However, whether to offer the full continuum or only one or two of the programmes, is left to the choice of the schools.

As of December 2014, 4972 IB programmes are being offered worldwide, across 3968 schools (IB 2014). In IB World Schools in the United Arab Emirates (UAE), where I currently work, the IB DP and the IB PYP seem to be more of a popular choice when compared to the IB MYP. According to the research statistics published in the official IB website, in the UAE, there are 19 schools offering the IB PYP, 32 schools offering the IB DP, and only eight schools offering the IB MYP (IB, 2014). The IB MYP, therefore, does not seem to be enjoying as much popularity as the other IB programmes, at least in the UAE. A detailed description of the IB programme models is given in Chapter 2 of this study.

The international school in this study: an IB World School in the UAE, has adopted the IB PYP and the IB DP, and has created its own "Conceptual Curriculum programme" for grades 7-10 (students aged 11-16). The Conceptual Curriculum programme has been developed by the school, based on Erickson's model of "concept-based curriculum and instruction" (Erickson

2008, p.29), that emphasizes the need for teaching and learning to go beyond the regurgitation of factual knowledge, so as to promote deep conceptual understanding (Erickson, 2008). A detailed explanation of the Conceptual Curriculum programme developed by the school is given in Chapter 5 of this study.

When schools develop their own curriculum programmes, based on a broad curriculum philosophy such as teaching for conceptual understanding, teachers are required to play an active role in the selection and arrangement of curriculum content, inherently requiring teachers to become agents in curriculum “recontextualization” (Bernstein 1996, p.47). Through a singular case study, this research enquiry seeks to explore teacher perceptions about the development of the Conceptual Curriculum programme and the intended and unintended outcomes of the initiative.

## **1.2 My personal motivation for this study**

“It is becoming increasingly important for social and behavioral researchers to clarify their personal motivation for their research, especially for those utilizing qualitative methodologies that require reflexivity” (Breen 2007, p.163).

Researchers including Creswell (1994), Crotty (1998), Etherington (2004), and Patton (2002) have also stressed the importance of clarifying the researcher’s personal motivation, particularly when adopting qualitative methodologies. Mercer (2007) notes that in the last twenty years, there has been an exponential increase in practice-based research in education, due to the emergence of the Doctorate in Education programme (EdD), as being different from the Doctorate in Philosophy (Ph.D) programme. Mercer (2007) also argues that a great majority of students enrolled in EdD programmes often “complete the courses on a part-time basis whilst continuing with their regular jobs, with the result that their own school or college becomes their research site” (Mercer 2007, p.2). This resonates very much with my situation. Being

enrolled in the EdD programme as a part-time student and working full time in an IB World school (as the Curriculum and Staff Development Coordinator), the school has potentially become my research site for all of my EdD assignments, including my research enquiry.

### **1.3. Being analytical versus normative**

While working on identifying my research topic and articulating my research questions, I came across an interesting article titled “The Peculiar Problems of Preparing Educational Researchers” by Labaree (2003). Being drawn to identifying research topics in my work site and truly believing in the value of “practitioner research” (Robson 2002, p.382), the article made me reflect on the challenges that Labaree (2003) points out, in terms of preparing doctoral students who engage in research within their work sites, to think “analytically” versus “normatively” (Labaree 2003, p.14).

Taking the example of two children fighting in the classroom, Labaree (2003, p. 14) points out that while a researcher would be interested in analyzing the “social, psychological, economic and pedagogical reasons for the conflict”, the teacher will want to quickly intervene and separate the students from fighting. Thus, here, Labaree is drawing attention to the point that teachers who turn educational researchers do not prioritize intellectual analyzing to happen “while the classroom burns”. The impulse of teachers is to often “intervene and fix the problem” and then to follow this up with a study that reflects on how and why things happened (thereby becoming normative), what was done to resolve the issue, and to suggest what further could be done to improve such situations in the future. Such a “normative versus analytical” approach, points out Labaree (2003, p.18, emphasis my own):

“often leads students to frame their own research around *educational success stories*. The idea is to pick an intervention that promises to improve education—a new teaching technique, curriculum approach, instructional technology, reform effort, or administrative structure—and

study it in practice. The desired outcome is that the intervention works rather well, and the function of the study is to document this and suggest how the approach could be improved in the future. *This often leads to an approach to scholarship (and eventually to a kind of scholarly literature) that is relentlessly, unrealistically, sometimes comically optimistic—one that suggests that there is an implementable answer to every educational problem and that help is always on the way...*

While the above excerpt from Labaree did not, in any way, make me doubt the scholarly nature of studies published by practitioners (neither is Labaree suggesting this), the relevance of maintaining the “analytical versus normative” approach while engaging in educational research struck me very deeply; particularly since I was drawn towards identifying a suitable topic of study for my research enquiry within my work site.

#### **1.4 The Research Questions**

The research questions for this study were not succinctly articulated right at the beginning of the study, but rather, were the result of an iterative refinement of the ideas, interests and curiosity that I have nurtured about the experiences of teachers in being agents of school-based curriculum development initiatives. In the role of Curriculum and Staff Development Coordinator, and as an independent consultant for Erickson’s (2008) model of the concept-based curriculum and instruction, I have worked extensively with teachers in many IB World Schools in the region (Middle East) on curriculum development initiatives. It was through these experiences that I was convinced that there is a valid issue that needs systematic investigation in terms of teacher perceptions about school-based curriculum initiatives, that particularly involve working with complex curriculum philosophies such as teaching for conceptual understanding. Hence, I was keen on exploring this topic further through my research enquiry.

Thus, my personal belief that there is significant meaning and value in harnessing teacher perceptions and experiences in school-based curriculum development initiatives, in the light of extensive literature review, helped me articulate two research questions as follows:

RQ 1: What are teacher perceptions about the development of a concept-based curriculum program in one IB World School in the Middle East?

RQ 2: What were the intended and unintended outcomes of such a school-based curriculum development initiative?

Having worked in the school since 2006 and having been a part of the development of the Conceptual Curriculum programme, I considered the above two research questions as an important vehicle that would eventually set the stage for the development of a Conceptual Curriculum Review Plan; something similar to the IB Five Year Evaluation (IB 2010d, p.3) that is conducted every five years by the IB, in all IB World Schools that offer the IB programmes. The IB Five Year evaluation helps evaluate the potential strengths and weaknesses of the IB programmes in the school and to identify further steps for improvement.

In terms of the research methodology, though the article from Labaree (2003) did not deter my interest in choosing a topic of study within my work site, I did reject the option of doing this study as an “action research” project (McNiff and Whitehead 1992, p.22) as I believed that doing so would in fact turn out to be an “unrealistically optimistic personal success story” (Labaree, 2003, p.14). In terms of bearing in mind and practically addressing the “normative versus analytical” (Labaree, 2003, p.14) challenge, it was important to identify a suitable theoretical framework for the study that would help me engage in an analytical approach to the research. In this regard, I believe that Bernstein’s (1975) theories offer sufficient sophistication and scope to analyze curriculum recontextualization, and this seemed relevant in the context of this study that

examines teacher perceptions about the development of the Conceptual Curriculum programme.

### **1.5 Bernstein's Theoretical Framework**

Bernstein (1996, p.47) notes that the process of selection of curriculum material by teachers is more than a simple decision-making process and it involves "recontextualization rules" which require "de-location of a discourse, for relocating and for refocusing it". Bernstein (1990, p.192) further proposes that there are primarily two fields that come into play when analyzing curricular orientations: the Official Recontextualization Field (ORF) and Pedagogic Recontextualization Field (PRF):

"The ORF includes the specialized departments and sub-agencies of the State and local educational authorities together with their research and system of inspectors...and the PRF is comprised of: university departments of education, together with their research; and specialized media of education, weeklies, journals and publishing houses together with their readers and advisers." (Bernstein 1990, p.192).

In order to analyze and clarify what happens when the curriculum knowledge as proposed in the ORF is "appropriated" in the PRF, Bernstein (1996, p.47) proposes concepts such as "classification, framing" and "recontextualization rules".

Levinson et al. (2009, p.799) define "appropriation" as:

"the ways that creative agents interpret and take in elements of policy, thereby incorporating these discursive resources into their own schemes of interest, motivation, and action, their own figured worlds".

Thus, "appropriation" would mean taking an educational policy, idea or philosophy and making it one's own by adapting it to suit one's own worlds of practice. In this study, the "concept-based curriculum and instruction" (Erickson 2008, p.28) that stresses the importance of teaching for conceptual



understanding (thus being “contextualized”) is “recontextualized” by the school in which it is being appropriated.

Organizations such as the IB World Schools that occupy the PRF enjoy considerable freedom and autonomy in curriculum decision-making by not being mandated to necessarily adopt all of the three IB programmes (IB PYP, IB MYP, and the IB DP) in order to be authorized as an IB World School. Schools can decide to adopt one or two of the IB programmes (such as the IB World School in this study) and often create their own curriculum models integrating educational “best practices” (Cambridge, 2011b, p.132) in place of the IB programme not adopted.

Such a decision by the schools will necessitate the negotiation of the “interactions of multiplicity of pedagogic fields” (Cambridge, 2011b, p.129): that of the IB and that of the curriculum model created/adapted. The school in the study, for instance, has to negotiate within and between the IB programmes as well as Erickson’s (2008) model of concept-based approach to curriculum, thereby necessitating the “interactions of multiplicity of pedagogic fields” (Cambridge, 2011b, p.129). This inherently necessitates teachers to become active agents in curriculum recontextualization. A closer look at the “interactions with the multiplicity of Official Pedagogic Fields that need to be negotiated” (Cambridge, 2011b, p.129), in the light of Bernstein’s theoretical framework, is what makes this study both complex and interesting.

In terms of literature on school-based curriculum development, there seem to be abundant examples of case studies that have explored the experiences and frustrations of teachers in school-based curriculum development (for example see, Bezzina, 1991; Cocklin et al, 1995; Day, 1990; Hannay, 1990; Marsh, 1990; May, 1992; Prideaux, 1993; Shoham, 1995). In terms of existing research on IB curriculum, there have been many recent contributions made in exploring the extent of coherence, concurrency, and consistency between the IB programmes (see for instance Stobie 2007, Marshman 2010), as well as the study of successful practices in the IB programme continuum (see Hallinger et

al 2010). There has also been research conducted on the nature and extent of challenges that students face when transitioning between the IB programmes (see Millikan, 2001; Hallinger et al, 2011). Some evidence of discussions on the challenges faced by schools in delivering the IB MYP is also available in the IB Research Notes (IBO 2001). Hayden and Thompson (2011) also provide critical insights into the IB MYP programme.

This research enquiry, however, seeks to explore teacher perceptions about the development of a concept-based curriculum programme, in the particular context of an IB World school in the Middle East, that has created its own Conceptual Curriculum programme for the middle school (ages 11-16) in order to bridge the IB Primary Years Programme (IB PYP) and the IB Diploma Programmes (IB DP). The study also seeks to explore the intended and unintended outcomes of the school-based curriculum development initiative.

Whether the curriculum framework created by the school has been successful in bridging the IB PYP and the IB DP coherently, or whether the curriculum programme developed by the school has supported transition more than the IB MYP would have done, is thus not the focus of this study, though both would be pertinent directions to pursue in future studies. Though not the main purpose of this research, understanding why the school did not adopt the IB MYP (in spite of having adopted the IB PYP and the IB DP) was considered a necessary prelude to the inquiry.

### **1.6 Insider research and being aware of its implications**

“Practitioner research” (Robson 2002, p.382), where professionals carry out a study in their own work settings, is not a new phenomenon. Such practitioner research can take the form of either a practitioner engaging in a self-reflective study (hence as a “reflective practitioner” (Schon 1991, p.330)) or a practice-based study undertaken by a practitioner in their work site, where colleagues become participants in the research (as in this study). This makes the researcher an “insider researcher”, who in general terms is seen as someone

who studies or conducts research in a group to which they belong (Breen, 2007, p.163). I consider myself to be an insider researcher, since the research site in this study is the school where I work and the participants involved in the study are my colleagues.

At the outset, such insider research status may seem to bring many advantages, particularly for novice researchers (such as myself) in terms of being “more practical: cheaper and easier” (Trowler, 2011, p.2). Coghlan and Brannick (2005, p.65) however, caution that insider researchers may struggle in handling the role conflict and may often get caught between “loyalty tugs” and “behavioral claims”. Drawing on extensive research literature (such as Coghlan (2003), Herrmann (1989), Rooney (2005); Tedlock (2000)), Unluer (2012, p.5)) identifies some of the advantages of being an insider researcher:

- “Speaking the same insider language,
- Understanding the local values, knowledge and taboos,
- Knowing the formal and informal power structure,
- Obtaining permissions to conduct the research and to interview,
- Getting access to records and documents easily” (Unluer , 2012, p.5).

In this regard, Dwyer (2009, p.58) also highlights the notion that being an insider researcher automatically generates a certain degree of “trust and openness” in participants and that one has a pre-established “starting-point” whereby “participants might be more willing to share their experiences”.

However, Dwyer (2009, p.58) points out that:

“Although this shared status (insider researcher) can be very beneficial as it affords access, entry, and a common ground from which to begin the research, it has the potential to impede the research process as it progresses”.

Labaree (2002, p.103) categorizes the advantages of insiderness into “four broad but interrelated values: the value of shared experiences; the value of

greater access; the value of cultural interpretation; and the value of deeper understanding and clarity of thought for researchers”, pointing out that each of these identified advantages have “concurrent challenges that the insider researcher must consider and address” (Labaree, 2002, p.103). Researchers such as Floyd and Arthur (2010, p 5) concur with this notion and describe insider research as a “potential minefield”. And the reality is that:

“When a novice researcher with insider status puts a qualitative methodological approach into practice...” it opens a “Pandora’s box of ethical and emotional dilemmas for the novice researcher..” (Zipf et al., 2011, p.1).

In this regard, Breen (2007, p.164) also points out that insider researchers are often confronted with methodological and ethical issues that are largely irrelevant to outsider researchers, and that insiders often struggle to balance their insider role (e.g., nurse, psychologist, geographer, activist) and the role of a researcher (also see DeLyser, 2001; Gerrish, 1997; Kanuha, 2000).

In terms of the “debate and scrutiny around insider research”, Rooney (2005, p. 3) raises three key questions:

- “What effect does the researcher’s insider status have on the research process?
- Is the validity of the research compromised?
- Can the researcher maintain objectivity?” (Rooney, 2005, p.3).

Drawing on extensive research that highlights the tension associated with the insider researcher position, particularly in terms of data collection, Unluer (2012, p. 6) highlights some disadvantages:

- “Role duality,
- Overlooking certain routine behaviors,
- Making assumptions about the meanings of events and not seeking clarifications,

- Assuming he/she knows participants' views and issues,
- The participants may tend to assume you (the researcher) already know what they know,
- Closeness to the situation hindering the researcher from seeing all dimensions of the bigger picture while collecting data" (Unluer 2012, p. 6)

Rather than viewing the insider-outsider roles as dichotomies, Mercer (2007, p. 1) proposes to consider it as a "continuum with multiple dimensions" where the researcher moves between the insider and outsider roles depending on the situation.

Being aware of the pros and cons of the insider researcher status right at the start of this research enquiry was essential and proved useful, as shall be explained in the later chapters of this study. I have explained the steps that I have taken to minimize the repercussions from each of the above challenges to insider research in detail, in the relevant chapters where I explain the data collection analysis procedures. I also explain how I addressed the dilemmas around being an insider researcher in detail, during the data collection procedures and the events that lead to the collection of data.

## **1.7 The Road Map – Chapter Outlines**

Chapter 1 has set the stage for this study by introducing the background and the context of the study. The purpose and importance of the study, in terms of how the study intends to add new knowledge to existing knowledge have also been discussed. This chapter has also introduced the reader to the theoretical framework that the study employs, to analyze the Conceptual Curriculum programme created by the school. The chapter also acknowledges the challenges and dilemmas of insider research and stresses the importance of being analytical versus normative, when one engages in research in their own work site.

Chapter 2 introduces the reader to the term “international schools” and the three International Baccalaureate (IB) curricular programmes offered in many international schools: the IB PYP, the IB MYP, and the IB DP. The Erickson’s (2008) model of concept-based curriculum philosophy that emphasizes the philosophy of teaching for conceptual understanding is then explained. This is followed by an extensive review of pertinent literature on curriculum, in order to narrow down the meaning of the term “curriculum”. The literature review also identifies the relevant debates in the field, thereby mapping out the ideological orientations of the term. Bernstein’s (1996) theoretical framework is explained in this chapter, to justify how the same can serve as an effective framework to interpret the Conceptual Curriculum created by the school.

Chapter 3 explains in detail the research design and data collection processes, along with justifications for the methods and methodology adopted. The chapter discusses in detail the various steps that constituted the building of the research design. The ontological and epistemological position of the researcher is then clarified. The mixed methods adopted by the study and the instruments of data collection are then explained. The importance of the theoretical framework that the study employs is then discussed. The issues of reliability, validity and research ethics are also discussed in detail in this chapter.

Chapter 4 explains the extensive coding and analysis involved due to the qualitative nature of the study. The chapter first provides background information on the school in the study and then moves on to explain the analysis of the findings of the preliminary stage of the study, to explain why the school chose not to adopt the IB MYP in spite of having adopted the IB PYP and the IB DP.

Chapter 5 identifies and explains the unit of analysis that is the case in this case study. The chapter also explains in detail the Conceptual Curriculum programme created for the middle school, before moving on to discuss the data gathered from the web-based questionnaire that aimed to answer the

research questions. The chapter also explains in detail the procedures undertaken for data analysis in order to report findings.

Chapter 6 draws on the emerging themes and categories identified through the coding of data as discussed in the previous chapter, in order to draw conclusions from the summary of the key findings in the light of the theoretical framework. New knowledge generated by the study and suggestions for further research are also identified. The chapter also presents a reflection on the experiences I encountered over the course of the study in terms of the valuable lessons learned from the experience of this study, as well as the process of educational research. I also discuss what I am particularly pleased with in the study, the challenges I encountered, and I identify some things that I would do differently if I were to undertake this study again.

## **CHAPTER 2 – LITERATURE REVIEW**

The literature review chapter is divided into two sections. The objective of the first section is to introduce the reader to international schools and the IB programs offered by some international schools. This is followed by an explanation of the Erickson's model of concept-based curriculum and instruction. How the concept-based approach of curriculum and instruction fits into the overall philosophy of the IB programs is also discussed.

The second section aims to map out the ideological orientation of the term "curriculum" and the inherent tensions in arriving at a commonly agreed definition of the word "curriculum". This is followed by a detailed explanation of Bernstein's theoretical framework that this study employs to interpret and analyze findings.

### **2.1 International Schools and the International Baccalaureate Programs**

The origin of international schools can be traced back to being established for "the children of expatriate diplomats and employees of transnational organizations who followed their parents' globally mobile professions around the world" (Hayden 2011, p.214). Though the notion of an international school has evolved much since its inception, the term still remains "ambiguous and loosely applied" (Joslin 2002, p. 37) to mean a "conglomeration of individual institutions which may or may not share an underlying educational philosophy" (Hayden and Thompson (1995b, p 13)). The task of thus arriving at a commonly accepted definition of an "international school" seems understandably challenging. As Gellar (2002) points out, this could be because the term "international" by itself is very ambiguous and open to interpretation, and that schools have also adopted the term without paying attention to what it actually means.

One approach to defining the term "international schools" has been by trying to categorize them, and this approach has been attempted by many researchers



as early as the 1960's and continued for many decades (see for instance, Leach (1969); and Matthews (1988)). Terwilliger (1972) took a different approach in trying to identify prerequisites for a school to be considered an international school. However, even recent literature on such attempts continues to point out that the results of such initiatives simply converge in highlighting the "extent of diversity...even when the numbers were much smaller" (Hayden 2011, p.215).

A useful categorization of international schools is offered by Matthews (1989, p. 12), who points out that there are two types of international schools: those that can be described as "ideology-driven" and those that are "market-driven". Hayden (2006, p.17) recommends that international schools be envisioned as a "spectrum: with ideological at one end and market-driven at the other end", and in this regard, Brummitt and Keeling (in Pearce, 2013, p. 17) further point out that most international schools "reconcile both sets of characteristics to varying degrees". Recent groupings of international schools have been established "on a more commercial footing, such as those run by the Nord Anglia Group, Global Education Management Systems (GEMS), Taleem, and Cognita" (Hayden 2011, p.216).

Commercially focused, market-driven international schools that serve their "customers" with international educational "services" that are also profit-driven schools, have to maintain a delicate balance between financial interests as well as educational ideals. The sharp increase of such profit-making, privately owned international schools in recent years is clearly indicated by both the John Catt International School Directory (Catt 2007) as well as the European Council of International Schools (ECIS 2007).

These market driven international schools often strive to make the educational experience:

“ A globally branded, reliable product, conforming to consistent quality standards throughout the world” (Cambridge , 2002, p.227).

Thus, the market-driven international schools often serve the local elites (when the national context allows them to do so) with aspirations toward “social and global mobility” (Cambridge, 2011b, p.132), as well as the globe-trotting “transnational capitalist class” (Sklair, 2002, p.5), who are on the lookout for a good quality international schooling experience for their children. Hayden (2011, p.216) notes in this context, that the phenomenal “growth in numbers and diversity of international schools has also been accompanied by the development of curriculum programmes that cater to them”.

### **2.1.1 Curricula in International Schools**

A useful means of categorizing curricula in international schools is provided by Thompson (1998, pp. 278-279), as those representing:

- Exportation: wherein the national curriculum or examination of a country has been adopted and offered without any alterations in different countries,
- Adaptation: here, national curricula are “adapted in terms of the different contexts in which the curricula and examinations are to be offered” (Thompson, 1998, pp. 278-279),
- Integration: “this occurs when best practices from a range of successful curricula are brought together to determine a curriculum that may be operated across a number of systems or countries” (Thompson, 1998, pp. 278-279),
- Creation: this is the label given to the “curriculum process which attempts to create a programme from first principles”, such as the International Baccalaureate.

This study particularly focuses on the notion of “Integration”, because the school integrates the international best practice and philosophy of concept-based curriculum and instruction (Erickson, 2008) through the Conceptual Curriculum program, created to bridge the IB programs offered by the school.

When international schools engage in such curriculum development initiatives, teachers are inherently required to become active agents in the curriculum development process. Curriculum development, which can be defined as “a collective and intentional process of activity directed at beneficial curriculum change” (Marsh and Willis, 2007, p.148), is always challenging because:

“How it takes place is always an issue, for there is no one right way to go about it, and whether change resulting from intentional curriculum development is or is not beneficial is always an open question.” (Marsh and Willis, 2007, p.148).

A closer look at the origin, evolution and nature of the three IB programmes at this point is pertinent to understand the curriculum development initiative undertaken by the school in the study.

### **2.1.2 The International Baccalaureate curriculum programs**

Hill (2003) throws some light on why programmes such as the IB and its philosophy became quickly popular in international schools, by noting that changes in any national system are always difficult and slow to happen, whereas international schools:

“were much more independent; had the potential to try out new educational ideas very rapidly; attracted teachers with open minds and attitudes...making them ideal educational laboratories...and it was in such a climate that the International Baccalaureate (IB) Diploma programme was born” (Hill, 2003, p.48).

The origin of the IB Diploma Programme is often traced back to teacher-led initiatives undertaken by the International Schools Association (ISA) (Tarc, 2009). The gestation period lasted between 1962 and 1968, and was supported by grants obtained from UNESCO (Tarc, 2009), and other generous contributions from the Ford Foundation, the Twentieth Century Fund and some supporting governments (IB 2014b). The ISA then handed over the project to

the International Schools Examination syndicate, which renamed itself as the “International Baccalaureate Office” shortly afterwards (IB, 2010b).

Three types of convictions amongst stakeholders are believed to have helped in shaping the philosophy of the IB DP: “ideological, utilitarian and pedagogical” (Marshman, 2010, p.3). The IB DP was thus envisioned to provide students aged 16 to 19 with “a balanced education, to facilitate geographic and cultural mobility and to promote international understanding”, which would thereby enable students to qualify for entry into the leading universities of the world (IB, 2014a).

Amongst others, the first director general of the IBO, Alec Peterson (1987) envisioned a curriculum that moved learning beyond “watertight compartments” that would reform the then existing “excessively specialized and polarized English curriculum”, that arose from a desire for “teaching of minds well informed rather than minds well stuffed” (Peterson 1987, pp. 47-48).

### **2.1.3 The IB Diploma Programme**

In 2008, the IB Diploma Programme was described as follows:

“The IB DP is structured around a hexagon, with six subject groups or academic areas, surrounding a core. Students select six subjects, one from each academic area, and also study or participate in the three areas of the core, that is, the Extended Essay (EE), Theory of knowledge (TOK), Creativity, Action, Service (CAS)” (IB 2008a, p.16).

It is pertinent to note at this point that as of November 2012, the IB programme models across the continuum have been re-designed as “circular models” (see Appendix: 1), as against the original hexagonal layout when the diploma programme was initially designed. One of the key features emphasized in the redesigned models has been to explicitly articulate the importance of a “concept-based” (IB 2012, p.3) approach in the IB continuum, particularly in the IB PYP and the IB MYP. Since the school in this study had developed the

Conceptual Curriculum programme in 2006 while keeping the hexagonal layout of the IB programmes in mind, I have retained the hexagonal IB programme models in this study.

The pedagogical approach of the IB DP emphasized the need to move away from the belief that accumulation of knowledge happens through the memorization of facts and content. Hill (2002, p.19) summarizes the pedagogical approach of the IB DP as:

“Critical inquiry coupled with an open mind and being willing to question established beliefs, being willing to withdraw from conventional positions in the light of new evidence and experiences; and being willing to accept that being different does not mean being wrong”.

According to Peterson (1987, p.47) “what matters is not the regurgitated interpretations of facts but the development of powers of the mind or ways of thinking that can be applied to new situations”. Peterson (1987, p.48) draws on Bruner (1960) in clarifying that:

“Teaching specific subjects without making clear their context in the broad fundamental structure of a field of knowledge is uneconomical in several deep senses...the knowledge one has acquired without sufficient understanding to tie it together is likely to be forgotten”.

The pedagogical perspective of the DP thus lays significant emphasis on both “conceptual understanding and the epistemological understanding of interdisciplinary” (Marshman, 2010, pp.3-4). Originally, learning the subject matter in the six disciplines adopted by the IB DP did not by itself guarantee that interdisciplinary understanding would take place. The adoption of the Theory of Knowledge (TOK) and the “Creativity, Action, Service (CAS)” component of the IB DP, were developments that were made to foster “connections between experiential and intellectual learning” (Marshman 2010, p.4).

Hill (2002) points out that, since the IB DP is designed as a pre-university course of studies that prepares its graduates to fulfill the requirements of various national educational systems, the curriculum in the IB DP is more prescriptive than the IB MYP or the IB PYP and offers minimal flexibility for teachers in terms of content and assessments.

#### **2.1.4 The IB Middle Years Programme (IB MYP)**

As the Diploma Programme grew in popularity, the lack of an appropriate middle school curriculum that would act as a suitable preparation for the Diploma Programme became evident, since existing “nationally-focused middle years programmes” in the 1970’s were perceived as a “mismatch” for the IB DP (Hayden and Thompson, 2011, p.13). Thus, the introduction of the IB MYP is believed to have been the outcome of the need expressed by a number of international schools in the 1970’s for a programme that would “act as an appropriate preparation for the Diploma Programme” (Hayden and Thompson, 2011, p.13).

The International Schools Association Curriculum (ISAC) initiated in the 1980’s by the International Schools Association, that aimed to develop a curriculum that “raised international awareness in young people with emphasis on skills, attitude and knowledge to participate in an increasingly global society”, is said to be the forerunner of the IB MYP curriculum (Marshman, 2010, p.5).

The IB MYP curriculum has eight subject areas and students study all of the subject areas throughout the five years of the programme. The eight subject areas are connected through the five “Areas of Interaction” (which is currently modified into concepts referred to as, “Global contexts” (IB 2014, MYP Next Chapter)). This is regarded as the core of the IB MYP programme (IB, 2008a, p 9). The “Areas of Interaction (AOI)” as a context for planning both disciplined and interdisciplinary teaching and learning include: “working cooperatively, independent research, interdisciplinarity, developing the ‘whole person’, and learning how to learn” (Hill 2002, p.27). The expectation of the “concurrency of

learning” was also articulated in the IB MYP Programme standards and practices under which:

“Students deal each year with a balanced curriculum in which the required subjects are studied simultaneously” (IB 2005, p.2).

Right from its inception, the IB MYP has stressed that:

“All knowledge is interrelated and the curriculum should cater to the development of the whole person...” (IB 2008a).

Thus, schools adopting the IB MYP programme are required to organize learning in such a way that students will become increasingly aware of the connections between subjects, content and the real world (IB 2002). Assessment in the IB MYP programme is internal and: “is carried out by teachers and relies on their professional expertise in making judgments based on the prescribed IB MYP assessment criteria defined in the subject guides” (IB, 2008a, p.19). Schools also have an option to externally moderate a sample of the assessments of students in the last year of the IB MYP, if the school wishes. As noted by Hayden and Thompson (2011, p.16):

“The IB (2008a) makes it clear that schools should not expect to be supplied with detailed curriculum documents that specify how precisely each element of the IB MYP is to be implemented. Rather, the IB MYP provides a framework within which each school develops its own written curriculum, with teachers encouraged by (the) IB to provide opportunities for students to build meaning and refine understanding through structured inquiry.”

#### **2.1.5. The IB Primary Years Programme**

The IB Primary Years Programme (PYP) introduced in 1997, is a curricular framework for “students aged 3 to 12 that focuses on the development of the whole child as an inquirer, both in the classroom and in the world outside” (IB, 2014). The IB PYP is believed to have been:

“the outcome of a sustained vision of the former International Schools Curriculum Project...to produce a common international curriculum that helps develop international-mindedness among children” (IB 2009, p.1).

A “curriculum framework” can be defined as:

“a group of related subjects or themes, which fit together according to a predetermined set of criteria to appropriately cover an area of study. Each curriculum framework has the potential to provide a structure for designing subjects and a rationale and policy context for subsequent curriculum development of these subjects” (Marsh 2006, p.19).

The IB PYP curriculum framework acknowledges the importance of traditional subjects and prescribes six subject areas: language, mathematics, social studies, science, the arts and personal, social and physical education that enable students to explore content. Each of these is explored through the six transdisciplinary themes:

“that are supported by knowledge, concepts and skills from the traditional subject areas but utilize them in ways that transcend the confines of these subjects, thereby contributing to the transdisciplinary model of teaching and learning” (IB 2008a, p.9).

Following several years of research that have analyzed various national systems and curriculum models in international schools, it was concluded that:

“there are clusters of important ideas which can usefully be grouped under a set of overarching concepts, each of which has major significance, regardless of time or place, within and across disciplines ... thus a conceptual framework for the (IB) PYP curriculum, structured around a set of key concepts was designed, which serve as labels for bringing together clusters of interesting ideas” (IBO 2000, p.13).

This notion is supported by educationists such as Gardner (1999, p.74), who argues that “less is more”, thereby encouraging the exploration of fewer topics



but in greater depth through an interdisciplinary approach, rather than covering a wide range of topics with minimal exploration. Drawing on these philosophies, the IB PYP acknowledges the fact that areas of knowledge commonly studied in national systems of schools take on a totally new dimension in international schools due to the fact that international school students often bring varied national, cultural and personal experiences into the classroom. The IB PYP hence approaches the task of identifying the areas of knowledge through “six transdisciplinary themes” (see Appendix: 2) that enable students to “acquire skills that transcend the boundaries of traditional subjects” (IB 2009, p.8).

The IB PYP, committed to the inquiry-based approach to teaching and learning, articulates the “relationship between the written, the taught and the learned curriculum” (IBO 2000, p.9). Therefore, the IB PYP promotes “inquiry” as the leading pedagogical approach that commits to constructivist philosophies of teaching and learning. Assessment is an important part of each of the units of inquiry, which besides assessing student understanding also provides students with a valuable opportunity to reflect on their learning experiences, which in turn, offers valuable feedback to teachers to inform further planning.

The five essential elements of the written curriculum: knowledge (disciplinary and transdisciplinary), key concepts, transdisciplinary skills, attitudes and action together with the “IB Learner Profile” (IB 2006, See Appendix: 3), aim to establish a balance between knowledge, understanding and skills. A review of the IB programmes will not be complete without mentioning that teaching and learning in the IB programmes is required to be viewed in the context of the “IB Learner Profile”, that is believed to have started its life in the IB PYP (IB 2008b, p.12). The IB Learner Profile :

“represents the aims of the IB PYP programme, as well as drives the curriculum framework of the programme, ensures a coherent learning experience for each student throughout each year or grade level, and from one year or grade level to another” (IBO 2000, p.4).

It needs to be mentioned here that the IB also introduced the IB Career-related Programme in 2012:

“The IB Career-related Programme (CP) is an innovative education framework for students aged 16 to 19 incorporating the vision and educational principles of the IB into a unique programme specifically tailored for students who wish to engage in career-related learning.” (IB 2014).

The underpinning pedagogical philosophy across the IB continuum (IB PYP, IB MYP and the IB DP) can be summarized as emphasizing the need for teaching and learning going beyond the “regurgitation of facts” (Peterson, 1987, p.47) so as to promote deep conceptual understanding. Recent curriculum literature is also abundant with examples that value the importance of teaching for conceptual understanding (see for example, Erickson 2002, 2008, Gilbert and Vick 2004, Wiggins and McTighe, 2005; Brophy and Alleman 2006).

#### **2.1.6 Erickson’s model of concept-based curriculum**

A number of studies have been published that emphasize the value of a concept-based approach to curriculum and instruction (see for eg. Mazur, 1997, Chappel and Killpartick, 2003; McCoy and Ketterlin-Geller, 2004; Twyman et al. 2003). A concept-based approach has also been recommended to tackle the current problems associated with “content saturation” (Giddens 2007, p.65).

The difference between a content-driven lesson and concept-based instruction is succinctly brought out by Erickson (2002, p.50) who points out that, while the former would focus on the “facts of the Alaska oil spill”, the latter would focus on developing an understanding “of the importance of environmental sustainability”. Giddens (2007, p.68) points out that a concept-based approach complements the constructivist philosophy by promoting an “active learner-centered approach”.

Erickson (2008) draws on the seminal work of curriculum scholars such as Taba (1962), who maintain that learning has multiple objectives: the learning of content and the learning of increasingly sophisticated behaviors in thinking, attitudes and skills, and that these objectives call for different forms of instruction at different levels of complexity. Erickson (2012, p.3) argues that:

“ A concept-based curriculum is contrasted with the traditional two-dimensional model of topic-based curriculum which focuses on factual content and skills with assumed, rather than deliberate attention to the development of conceptual understanding and the transfer of knowledge.”

Erickson (2008) further draws on Taba (1966, p.49), who proposes, “specific content should be sampled rather than covered”. Thereby, Erickson maintains that teaching for conceptual understanding needs to:

“move from teaching centered around ‘topical themes’ to integrating thinking at the conceptual level with the use of concepts that are at a higher level of generality and abstractness...” (Erickson 2008, p.30)

According to Erickson (2008, p.28), a universal concept is “a mental construct that is timeless, universal, and abstract to different degrees”. Thus, concepts are “high level abstractions expressed in verbal cues and labels, e.g., interdependence, cultural change and causality” and are “the foundational organizers for both interdisciplinary curriculum and single-subject curriculum design” (Taba 1966, p.48).

“A curriculum design is a statement which identifies the element of the curriculum, states what their relationships are to each other, and indicates the principles of organization and the requirements of that organization for the administrative conditions under which it is to operate. A design, of course, needs to be supported with and to make explicit a curriculum theory which establishes the sources to consider and the principles to apply” (Taba, 1962, p. 421).

According to Erickson (2008, p.28), in a concept-based curriculum design, concepts serve as a “bridge between topics and generalizations”, thereby enabling students to apply factual knowledge to develop deep conceptual understandings. Through a concept-based approach to curriculum and instruction, Erickson (2012, p.3) proposes a shift from the traditional “two dimensional” curriculum that focuses on content knowledge, to the concept-based “three-dimensional” curriculum that goes beyond rote memorization.

Taba (1966, p.49) refers to generalizations and principles as the main ideas of the content under study, and suggests that “content coverage could be focused and delimited by letting the main ideas - the generalizations - determine the direction and depth for instruction” (generalizations are also called “enduring understandings” by Wiggins & McTighe (1999), “essential understandings” by Erickson (2002, p.46), or “Big Ideas” in IB educational jargon).

Taba (1966) proposes the notion that the main ideas act as a sort of filter to the vast volume of facts and enable the choice of deciding what is important. Erickson (2007, p.41) also supports this notion by saying that a concept-based curriculum and instruction model helps reduce the burden of an overloaded curriculum and also “allows the teacher to control rather than be controlled by the subject matter, and provides the flexibility to allow students to search for and construct knowledge”.

While curriculum scholars such as Marzano (2003) strongly support the value of teaching for conceptual understanding, Marzano (2003, p.24) also vehemently argues against the choice of content being left to the discretion of individual teachers:

“Opportunity to learn addresses the extent to which the curriculum in a school is “guaranteed”. This means that states and districts give clear guidance to teachers regarding the content to be addressed in specific courses and at specific grade levels. *It also means that individual*

*teachers do not have the option to disregard or replace assigned content*". (Marzano 2003, p.24, emphasis my own).

It needs to be noted at this point that the school in this study has created its own curriculum, based on the concept-based approach to curriculum as proposed by Erickson (2007) and has called it the "Conceptual Curriculum Programme". Throughout this study, I have used the terms "concept-based" and "Conceptual Curriculum" interchangeably, depending on whether I am referring to the school, or to Erickson (2007).

As it will be explained later, in creating the Conceptual Curriculum program in the school in the study, teachers have been required to chose and arrange the content, and also choose the concepts to facilitate teaching for conceptual understanding. The Conceptual Curriculum program also needs to bridge the IB PYP and the IB DP offered by the school. A combination of the "integration" of international best practices (Thompson, 1998, pp. 278-279) and the need to negotiate between the "multiplicity of pedagogic fields" (Cambridge, 2011b, p. 129) is what makes the school-based curriculum development initiative undertaken by the school both complex and interesting.

At this point, it becomes essential to acknowledge the tension and dilemma in arriving at a commonly agreed upon definition of the term "curriculum".

## **2.2 Inherent tensions in attempting to define the term “curriculum”**

There are many approaches one can take in order to review literature on curriculum studies. Curriculum experts such as Goodlad (1979) consider conducting an analysis of the various definitions that exist on curriculum as a useful starting point. This approach has also been advocated by other curriculum scholars such as Stenhouse (1975, p.1), who notes that:

“definitions of the word do not solve curricular problems; but they do suggest perspectives from which to view them”.

Marsh (2004, p.4) succinctly highlights the inherent tension in this approach by citing Portelli (1987):

“According to Portelli (1987) more than 120 definitions of the term ‘curriculum’ appear in the professional literature devoted to curriculum, presumably because authors are concerned about either “delimiting what the term means or establishing new meanings that have become associated with it”.

Portelli (1987) has brought out this tension by drawing on a metaphor developed by Soltis (1978, p.364) who notes that:

“Those who look for the definition of curriculum are like a sincere but misguided centaur hunter, who even with a fully provisioned safari and a gun kept always at the ready nonetheless will never require the services of a taxidermist”.

This inherent tension may suggest that conducting an analysis of the definitions of the term “curriculum” may not seem a useful starting point. However, as Ornstein and Hunkins (2009) point out, such a plethora of definitions of the term reflect the dynamism of the field of curriculum studies in terms of the wide range of philosophical beliefs, conceptions of human learning, pedagogical strategies, political experiences and cultural background of society, that curriculum is intended for.

In this regard, while pointing out that arriving at a consensus of the term “curriculum” is extremely difficult given the “diversity of the values and experiences key players in the field bring into defining the term”, Marsh (1997, pp.1-4) also provides a selection of eight definitions of curriculum. Marsh’s (1997, 2004) definitions of curriculum provide the reader with the breadth and range of interpretations the term “curriculum” can have, while at the same time also pointing out that accepting only any one of the definitions may be problematic in the sense of accepting a limiting view of the term. I have discussed Marsh’s definition of curriculum below, before discussing other curriculum scholars’ notions further on.

### **2.2.1 A review of definitions of “curriculum”**

The first notion of defining the term “curriculum” that Marsh (1997, p.1) describes is one that views curriculum as “that which is taught in school”, though quickly contending that such an approach to defining curriculum is far too “vague and general” to be useful. The second approach is to view “curriculum as a set of subjects”. This again, Marsh (1997) argues, is a very limited notion of defining the term “curriculum”, as here the term is being limited to what happens within the walls of a classroom within the allocated time periods in a school day. The third notion is that “curriculum is content” which brings into the picture the “interesting notion of “syllabus” which is usually a summary statement about the content to be taught in a course or unit, often linked to an external examination.” Here, the emphasis is on “*what* content is to be taught”, though it is necessary to remember that a curriculum is more than this, and “*how* we teach content can drastically affect what is taught” (Marsh, 1997, p.4, emphasis in original).

The fourth approach in defining curriculum as a “set of materials” adopts the notion of curriculum being defined “as a product or a document which includes details about goals, objectives, content, teaching techniques, evaluation and assessment resources”. Marsh (1997, p.4, emphasis in original) points out that these are often “official documents issued by the government or one of its

agencies which prescribe *how* and *what* is to be taught”, but is also quick to point out that these documents represent “the *ideal* rather than the *actual* curriculum and a teacher may not accept all aspects of a written curriculum and/or (may) be unable to implement a curriculum exactly prescribed due to lack of training and understanding”. This can lead to gaps between “the “intended curriculum - what is intended to occur” and the “enacted curriculum - what actually happens when the curriculum is enacted in the classroom”. (Billett, 2005, p.2).

The fifth definition that Marsh (1997, p.4) highlights is “a very practical orientation to curriculum”, by viewing curriculum as “a set of performance objectives”. He adds that proponents of this approach argue that “if a teacher knows the targets which students should achieve, it is so much easier to organize other elements to achieve this end, such as the appropriate content and teaching methods”. This approach, as Marsh (1997, p.4) points out, can however “lead to the over emphasis of behavioral outcomes and objectives which can be easily measured, and a curriculum document which is simply a listing of performance objectives would tend to be unwieldy”.

The sixth definition considers curriculum as “that which is taught both inside and outside of school and directed by the school”, indicating that school learning is not confined to what happens in the classroom alone, but rather, that “all kinds of activities that occur in the classroom, playground and community, comprise the curriculum.” However, Marsh (1997, p.4) also points out that here, the emphasis is on “direction”, indicating that “the only learning experiences are those which are directed by school personnel”, which many would question.

The seventh definition of “curriculum” that Marsh includes is in terms of “what an individual learner experiences as a result of schooling”, which attempts to place emphasis on widening the learning experiences “that will enable a student to develop into a fully functioning person”. Here, Marsh (1997, p.4) acknowledges that “students acquire skills and values, not only from the official



or formal curriculum but also from the unofficial or hidden curriculum which is implicit within regular school procedures: in curriculum materials, and in communication approaches and mannerisms used by staff", from which students do learn a lot, even though this is not necessarily the intention of teachers. The eighth definition that Marsh highlights is viewing curriculum "as everything that is planned by school personnel" which again emphasizes "the planning aspect of curriculum...that also brings to bear the distinction that some writers make between curriculum and instruction: curriculum is the *what* (activity of producing plans for further action) and instruction is the *how* (putting the plans into action)."

Marsh (2004, pp. 4-7) also produced a revised list of definitions in 2004, retaining much of the above definitions and further adding two more perspectives so as to reflect the modern day educational scenario; one: "Curriculum is that which the students construct from working with the computer and its various networks, such as the Internet". Here, Marsh (2004) notes that all students may not have equal access to such resources and that one needs to be cautious of accepting such broad and excessive claims as to how effectively technology can contribute to the learning of all students. And two: "Curriculum is the questioning of authority and the searching for complex views of human situations". Marsh (2004, p.7) notes that this definition of curriculum is a "postmodernist definition which implies opposition to widely used (modern) values and practices...and pointing out that postmodernism reduced simply to the process of questioning may not be helpful in identifying in practice how students should spend their time and energy".

As mentioned before, Marsh's (1997, 2004) different definitions of curriculum throw light on both the range of different interpretations the term "curriculum" can have, and also acknowledge the danger in accepting any one of the definitions in its entirety while ignoring the others. Such an approach that accepts only one of the definitions will produce a limiting view of the broad term.

Curriculum scholars such as Kelly (2004), however, have taken a different approach, by attempting to provide a road map for defining curriculum. Kelly (2004 p.46) maps out three distinct “ideological orientations” to curriculum studies, which also covers some of the approaches as discussed by Marsh (1997):

“Curriculum as content and education as transmission; Curriculum as a product and education as instrumental and; Curriculum as a process and education as development” (Kelly 2004, p.46).

The “curriculum as a product” approach is also evident in as early as the 1900’s through definitions such as Bobbit’s (1918, p.42, emphasis my own) who states:

“Human life, however varied, consists in the performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these specific activities...the curriculum will then be that *series of experiences* which children and youth must have by way of *obtaining those objectives*.”

This approach basically views the centrality of the role of education in preparing one for life, which was also a notion shared by Tyler (1949) who argued that the main purpose of education is to bring about changes in the student’s behavior through systematic and linear procedures in curriculum planning. Curriculum scholars who adopted the view of curriculum as a “means-to-an-end approach”, such as Tyler (1949) and Taba (1962) came under the “traditionalists” due to their traditional view of curriculum studies.

### **2.2.2 The Curriculum traditionalists**

Tyler (1949, p.1) proposed four central questions to serve as a guide for curriculum planning. The Tyler approach was more aligned towards viewing curriculum development as being an objective, product-oriented approach thereby suggesting that curriculum planning is more of a “practical

enterprise” (Tyler 1949, p.18) versus a theory: an enterprise that works with a “means to an end” philosophy. This “product-driven approach” is articulated through the four central questions (Tyler, 1949, p.1) given below:

- The first question: “What educational purposes should the school seek to attain?” requires those involved in curriculum development to be clear on the nature and purpose that they seek to attain in terms of its basic objectives,
- The second question: “What educational experiences can be provided that are likely to attain these purposes?” requires those involved to identify the nature of experiences that need to be adopted towards attaining the objectives laid out in the first question,
- The third question: “How can these educational experiences be effectively organized?” relates to the decisions in terms of organization of the learning experiences,
- And the final question: “How can we determine whether these purposes are being attained?” aims at evaluating whether or not the very purpose for which the educational experience was initiated, has been achieved in reality.

These four central questions that Tyler raised to approach curriculum studies, eventually came to be known as the “Tyler Rationale” and remained the “number one cited item in the field of education for more than 30 years” (Goodlad n.d, pp. 91-92) that was “raised almost to the status of a revealed doctrine” (Kliebard 1970, p: 270). Tyler also acknowledged the limited availability of resources for curriculum development and implementation, thereby being very “pragmatic” in his approach (Pungur and Buck, nd, p7).

The product-driven approach of Tyler (1949) was also adopted by contemporaries such as Taba (1962, pp.13-14) who saw curriculum development as a series of consecutive steps “each of which adds to and revises the decisions made at the preceding step”. This necessitated “not only having a rational scheme for planning its various elements, but also to have a methodology for developing these elements, and for relating them to each other”. Thus, Taba (1962, p.76) proposed that:

“Curriculum is essentially a plan for learning consisting as it does of goals for learning and ways for attaining these goals. A curriculum plan is a result of decisions regarding three different matters:

1. Selection and arrangement of content,
2. The choice of the learning experiences by which this content is to be manipulated and by which the objectives not achievable through content alone can be attained and
3. Plans for the optimum conditions for learning” (Taba,1962, p.76).

Taba (1962, p.12) also proposed that the decisions on the above matters be made by following a step-by-step process that reflects “orderly thinking such as:

1. Diagnosis of the needs,
2. Formulation of objectives,
3. Selection of content,
4. Organization of content,
5. Selection of learning experiences,
6. Organization of learning experiences,
7. Determination of what to evaluate and of the ways and means of doing it” (Taba, 1962, p.12).

Almost twenty years after its publication, Kliebard (1970, p.267) offered criticisms on the Tyler rationale by saying that it failed to provide boundaries of what should be included in the curriculum. Others who joined the criticism on the Tyler Rationale included Pinar (1975a), (who came under the “curriculum reconceptualists”) who argued that the “Taylor Rationale” had a very narrow concept of the curriculum. The Tyler Rationale also received criticism on the grounds of not identifying behavioral objectives before developing the curriculum and leaving curriculum development in the hands of less qualified

personnel at local schools (McNeil, 1990), thus raising the question whether teachers were indeed qualified for developing curriculum.

However, regardless of the intense criticism it received, the Tyler approach remained a “central document in the curriculum field” for over fifty years and offered in the period starting from the 1930’s an “outline of questions that must be considered in developing curriculum” (Hlebowitsh, 1992, pp. 533-534). The Tyler Rationale is also believed to represent “the foundation of the field and its paradigmatic stabilization for curriculum studies” (Pinar 2008, p.491).

### **2.2.3 The Curriculum “reconceptualists”**

Curriculum scholars such as Huebner (1966) argued that the pragmatic Tyler approach to curriculum was flawed and that curriculum research needs more of a language-oriented approach that aims to give sense and structure to the collected information.

“The reconceptualists encouraged those involved in curriculum, to recognize that the Tyler rationale is tyrannically behaviorist in its quality and is logically anchored in a line of thought that celebrates superimposing an industrial mentality upon the school about curriculum” (Hlebowitsh 1992, p. 533).

Pinar et al (1999a) termed the groups emerging from traditionalists as the “reconceptualists” and argued that the reconceptualists emphasized the place of theory in the field of curriculum studies:

“During the past two decades the field of curriculum has been reconceptualized from an exclusive practice-oriented field to a more theoretical, historical and research-oriented field” (Pinar 1999b, p.484).

The reconceptualists hence approached curriculum studies through more of a research-based, historically-oriented approach, as opposed to the pragmatic approach adopted by Tyler. To Pinar (1979, p.93), reconceptualization was “a reaction to what the field has been and what it is seen to be at the present

time". Thus, contrary to the "product-driven approach" adopted by the traditionalists, was the "process-driven approach" formulated by reconceptualists such as Huebner (1966), who argued that curriculum was the outcome of the interaction between three elements: research, practice and language.

In this context, Smith (1996, 2000) points out that the best known explorations of a process model of curriculum theory and practice is offered by Stenhouse (1975), who proposed that: curriculum is more of a practice than:

"a package of materials or a syllabus of ground to be covered; It is a way of translating any educational idea into a hypothesis, testable in practice that invites critical testing rather than acceptance" (Stenhouse (1975, p.142)

Thus, moving away from the notion of viewing curriculum as a package that is designed "to be delivered", Stenhouse (1975, pp. 4-5) proposed that curriculum studies was more like a recipe in a cookery book:

"A curriculum, like the recipe for a dish, *is first imagined as a possibility, then the subject of experiment*. The recipe offered publicly, is in a sense, a report on experiment. Similarly, a curriculum *should be grounded in practice*. It is an attempt to describe the work observed in classrooms that it is adequately communicated to teachers and others. Finally, within limits, *a recipe can be varied according to taste. So can a curriculum.*" (emphasis my own).

Thus, here, Stenhouse is embracing the notion that curriculum is a "means by which the experience of attempting to put an educational proposal into practice is made available" (Smith 1996, 2000) and that it is something that can be altered/varied to suit the requirement/taste of the end user. Stenhouse (1975, p.142) offered further clarifications by adding that:

“The idea is that of an educational science in which *each classroom is a laboratory*, each teacher a member of the scientific community...the crucial point is that the proposal is not to be regarded as an unqualified recommendation but rather as a provisional specification claiming no more than to be worth putting to the test of practice...it is a way of *translating any educational idea into a hypothesis testable in practice*. It invites critical testing rather than acceptance” (emphasis my own).

Schools adopting such an approach will move away from adopting prescriptive curricula and instead embrace broad “curricular frameworks” (Marsh 2006, p. 19) that facilitate the variation of the curriculum “recipe”. Broad curricular frameworks, as opposed to prescriptive curricula, thus attempt to place more emphasis on “thinking and meaning-making as central to practice” and embrace the notion that curriculum is often the end result of ongoing interaction of action and reflection, and that:

“Curriculum is not simply a set of plans to be implemented, but rather is constituted through an active process in which planning, acting and evaluating are all reciprocally related and integrated into the process” (Grundy 1987, p.115).

In this sense, the IB programmes are broad curricular frameworks, and the market-driven international schools (such as the school in this study) that have created their own curriculum by integrating educational best practices, would provide a typical example of such a curriculum “recipe variation”. School-based curriculum development initiative is defined as the:

“planning, design, implementation and evaluation of a programme of students’ learnings by the educational institution of which those students are members” (Skilbeck (1984, p. 2).

Skilbeck (1976, p.4) proposes the notion that schools are responsive to their own environments and hence should be permitted to develop their own

curriculum (in the same notion as Stenhouse's proposition of the "recipe" that can be varied to suit the taste) in a way to fit that environment:

"At the very least, schools need greatly increased scope and incentive for adapting, modifying, extending and otherwise re-ordering externally developed curricula than is now commonly the case. Curriculum development related to individual differences must be a continuous process and it is only the school or school networks that can provide scope for this" (Skilbeck 1976, p.94).

The process-model evokes its own criticisms in that such a model cannot promise uniformity in what is taught, particularly when teaching is directed towards an examination that is standardized. Though as Smith (1996, 2000) points out, this does not mean that students in the process-model cannot be examined. Rather, in this model, examination is just one of the many means of assessing student outcomes.

A major weakness of the process-model is that the strength of this model eventually rests with the quality of teachers, as it is based on "meaning-making" which can have severe limitations on educational outcomes when teachers are not "up to it" (Smith 1996, 2000). More importantly, it also bears the danger of "processes being replaced with the product" (Grundy 1987, p.77), when there are attempts to provide teachers with teaching materials and curriculum packages that focus on the "process of discovery" or "problem-solving", where processes often get reduced to a set of skills and "whether or not students are able to apply the skills is somewhat overlooked" (Grundy 1987, p.77).

The period of reconceptualization that brought forth the "curriculum as a process" proposal was criticized on the grounds of "being a movement against traditionalists" and as a "formal movement with a theory distant from practitioners". However, the reconceptualization period still had an "indelible place in historical discussions concerning curriculum studies and the roots of



reconceptualization were deep enough to allow the solid construction of a curriculum theory related to the paradigm of understanding” (Pacheco 2012, p. 8).

Curriculum studies in the post-reconceptualization period comprised a “new period defined by the post-modern project of understanding” (Pacheco 2012, p. 9) at the heart of which is a “commitment to a robust investigation of cultural, ethnic, gender and identity issues...” and a celebration of the “uniqueness of each individual person, text, event, culture and education” (Slattery 2006, p. 146). The post-reconceptualization not only returned to the central question of curriculum studies: “What knowledge is of most worth?” (Pinar 2006, p.80), but also brought back its “identity crisis” (Pinar et al 1995, p.849), thereby pointing towards its ongoing “continuities as well as discontinuities between the traditional and reconceptualized field”.

#### **2.2.4 Bernstein’s curricular orientations**

While the arguments and debates on the different theoretical perspectives as well as the tension between curriculum theory and practice continued, other curriculum scholars embraced a different approach to curriculum studies by engaging in the study of classroom practices. Curriculum scholars such as Bernstein (1975) adopted such a micro to macro approach. Contrary to the practice of seeking answers to difficult educational questions through top-down approaches that begin with larger policy questions and then working down to analyze how schools work in order to provide solutions to policy decisions, Bernstein (1975) formulated theories bottom-up:

“an approach that sought to write the rules of educational processes; then to link them to larger structural conditions and finally, to place this analysis in the context of the larger educational and policy questions of educators”. (Sadovnik 2001, p.5).

Bernstein (1975, p.85) proposed that formal education knowledge in an organization is realized through three message systems: “Curriculum, pedagogy and evaluation”:

“Curriculum defines what counts as a valid knowledge, pedagogy defines what counts as valid transmission of knowledge and evaluation defines what counts as a valid realization of this knowledge.” (Bernstein, 1975, p.85)

Bernstein (2000, p.205) also identifies four main types of “curricular orientations”: “retrospective, prospective, therapeutic and market orientations”. In a “retrospective orientation”, pedagogical dispositions are achieved through “a strict control of inputs of education that aim to restore the past in the present”. A “prospective orientation” is different to this in that it aims to retain the desirable aspects of the past in the present, “with a control on both inputs and outputs but with the aim of undergoing change”. Both of these orientations, however, are considered to be “top-down approaches due to the essential control on both input and output to achieve uniform outputs”.

The “therapeutic identity” as proposed by Bernstein (2000, p.205) is considered to be a much more “progressive approach”, in that it places more emphasis on the individual as against the collective by focusing more on personal development that aims for diversity in schooling to meet local needs.

The “market identity”, which is the fourth type of curricular orientation, responds to the market situations and opportunities and its aim is to produce a unique identity: a product “that has an exchange value in the market, the identity that is a reflection of external contingencies” (Bernstein 2000, pp. 69-70).

Bernstein (2000 p.65) further clarifies that each of these orientations attempts to “construct in teachers and students a particular moral disposition, motivation and aspiration, embedded in particular performances and practices”. Sadovnik (1991) points out that Bernstein’s latter theory of “pedagogic practice” must also be understood in relation to the concepts of “classification and framing”,

which is at the heart of Bernstein's (1971, p.49) theory of curriculum, and it offers clarification on the effects that different structures of message systems have on student learning.

According to Bernstein (1971), “classification” indicates the “degree of boundary” that is maintained between different content areas:

“Where classification is strong, contents are well insulated from each other by strong boundaries. Where classification is weak, there is reduced insulation between contents, for the boundaries between contents are weak or blurred. *Classification thus refers to the degree of boundary maintenance between contents.*” (Bernstein 1971, p.49; emphasis in original).

In this sense, classification is what enables each of the subject content areas to be ‘insulated’ from the other and remain mutually exclusive. For example, what happens in the mathematics classroom is totally isolated and independent of what may perhaps happen in a foreign language classroom. Framing, on the other hand, refers to the “degree of control the teacher and pupil can pose over the selection, organization, pacing and timing of knowledge transmitted and received in the pedagogical relationship” (Bernstein, 1971, p.50). The concept of framing is what helps us understand what forms of knowledge a student has access to, and what they do not: the timing in terms of when and how that content is taught and prioritized (Bernstein, 2000). Or in other words:

“Classification refers to *what*, framing is concerned with *how* meanings are to be put together. Framing thus helps explain the *internal logic* of pedagogic practice and the nature of control over:

- the selection of the communication,
- its sequencing (what comes first, what comes second),
- its pacing (the rate of expected acquisition),
- the criteria and

- the control over the social base which makes this transmission possible” (Bernstein 2000, pp. 12-13, emphasis in original).

Thus, simply put, strong classification means that things must be kept apart and weak classification means that things must be brought together. Bernstein (1996, p 9-11) proposes that:

“When classification becomes weaker, we must have an understanding of the recontextualization principles which construct the new discourses and the ideological bias that underlies any such recontextualizing...and it is also important for us to ask, in whose interest is the apartness of things, and in whose interest is the new togetherness?...if a value changes from strong to weak, or vice- versa, if framing changes from strong to weak or the classification changes from strong to weak, there are two basic questions we should always ask:

- Which group is responsible for initiating the change? Is the change by a dominant group or a dominated group?
- If the values are weakening, what values still remain strong?” (Bernstein, 1996, p.15)

Bernstein (1975, p.87) further proposes that from the variations in the classification and framing, two types of curricula come into play: “open and closed”. In a “closed” curriculum, classification is strong, which means that all subjects are taught in isolation of each other, with strong boundaries separating each of these subject areas. Bernstein (1975) calls this a “closed or collective curriculum”. In an “open” curriculum on the other hand, classification is weak: subject areas are not isolated from each other and boundaries are blurred, if at all existing, and this is termed the “integrated or open curriculum”.

Drawing on the metaphor of the English garden, Ross (2000, p.2) compares Bernstein’s (1975) notion of classification and framing of curricular knowledge to garden “territories” as defined by different kinds of “frames, boundaries, hedges and pathways”. Ross (2000, p.4) further points out that, similar to a

“landscape garden” that is separated from the surrounding countryside by a “dry ditch, a sunken barrier” that creates an “illusion that the garden and the surrounding countryside are a unity...”, a weakly classified curriculum creates the impressions of a “weak boundary between what may and what may not be transmitted” (Bernstein 1975, p.50).

### **2.2.5 Recontextualization Rules**

Bernstein (1996, p.47) unpacks the dynamics of organizational power-relations through his theory of pedagogic device which provides three inter-related rules: *distributive, recontextualizing and evaluative* - the rules that are hierarchically related. The distributive rule regulates power-relationships between social groups by distributing different forms of knowledge, while the recontextualizing rules regulate the formation of specific pedagogic discourses and the evaluative rules constitute specific rules that evaluate pedagogic practices. These rules are by themselves hierarchically related in that recontextualizing rules are derived from the distributive rules, and evaluative rules are derived from the recontextualizing rules (Bernstein 1996).

Bernstein (1996) argues that the function of the distributive rules is to regulate power relationships between social groups by enabling access to differential forms of knowledge (on the same line as the arguments proposed by Bourdieu (1992)). The recontextualization rules, on the other hand, are the “rules for delocating a discourse, for relocating it and for refocusing it” (Bernstein 1996, p.47). And lastly, the evaluative rules enable distinguishability of what constitutes valid instructional knowledge (as in curricular content) and what constitutes regulative discourse (such as social conduct etc).

Within the Recontextualization Field, Bernstein (1990, pp.190-192) proposes that there are primarily two sub-fields that come into play when analyzing curricular orientations: the Official Recontextualization Field (ORF) and Pedagogic Recontextualization Field (PRF):

“The ORF includes the specialized departments and sub-agencies of the State and local educational authorities together with their research and system of inspectors...and the PRF is comprised of : university departments of education, together with their research; and specialized media of education, weeklies, journals and publishing houses together with their readers and advisers.” (Bernstein, 1990, p.192)

Singh (2002, p.5) points out that Bernstein (1990) uses the term “pedagogic discourse” to describe the rules or principles: that is, the grammar or syntax for generating different pedagogic texts/practices.” Thus, according to Bernstein (1990, p.184), a pedagogic discourse is:

“A recontextualizing principle which selectively appropriates, relocates, refocuses, and relates other discourses to constitute its own order and orderings.”

Bernstein (1990) further argues that, when privileged pedagogic texts such as schemes of curriculum and textbooks are appropriated in the classroom by teachers and students, there is evidently the interplay of two “text transformations”: first, where there is conversion of knowledge appropriated from the field of production within the official and pedagogic recontextualization field; and second, when the translation of the pedagogized knowledge by teachers and students happens in the recontextualised school/classroom. Here, Bernstein (1996, p.69) asks us to consider those institutions which have considerable autonomy over the use of their resources, staff, budgets and the courses they create and deliver. Such institutions can:

“Attract the students who have choice of institution; meet external performance criteria and; optimize its position in the market: that is to optimize its position with respect to the exchange value of its products, namely students.”

In such institutions, the demands of the market dictate or facilitate the optimization of inputs in order to increase the exchange value in the market

and view the transmission of knowledge in terms of the exchange value it will generate. Such a “de-centered market identity”, argues Bernstein (1996, pp. 68-69), “constructs an outwardly responsive identity rather than one driven by inner dedication” and in turn, “creates a new stratification both of knowledge and identities”.

“The end of the twentieth century is witnessing a dislocation between knowledge and the knower” because the production, distribution and circulation of knowledge are separated from “inner commitments and dedications” since they are focused on meeting external market demands.” (Bernstein 2000, p. xviii)

Profit-making, privately-owned international schools (such as the one in this study) that often offer programs such as the IB, enjoy considerable autonomy in terms of their resources, staffing and budget and are also in a position to attract student clientele who are willing to pay a high fee in exchange for an international credential that will optimize their position in the global education and employment market.

In this context, Hayden (2011, p.216) notes that the phenomenal “growth in numbers and diversity of international schools has been accompanied by the development of curriculum programmes to cater for them”. Such curriculum development initiatives undertaken by international schools often result in the creation of new models of curriculum that “integrate” international best practices (Thompson, 1998, pp. 278-279).

Such models would also fall under Stenhouse’ s (1975, pp.142-143) “process-model curriculum”, that acknowledges the notion that “each classroom is a laboratory and each teacher a member of the scientific community”, thereby considering curriculum as a “recipe that can be varied according to taste”.

What is interesting to note is that, during the variation of the “recipe”, much of what is appropriated undergoes significant transformation in the schools/ classrooms. Such school-based curriculum development initiatives also require

teachers to become actively involved in the process of selection and arrangement of content. In this context, Scott (2008, p.141) recommends that while attempting to understand the world of education and the role of curriculum in a “Bernsteinian manner”, there are some key questions that will guide those involved in curriculum development:

- “What items of knowledge should be included in a curriculum and what items excluded?”
- What reasons can be given for including some items of knowledge and excluding others?
- How should those items of knowledge be arranged in the curriculum?”

Marsh (2006, p.200) argues that from these questions evolve other questions:

- “Why should we teach this rather than that?”
- Who should have access to what knowledge?
- What rules should govern the teaching of what has been selected?
- How should various parts of the curriculum be interrelated in order to create a coherent whole?”

Marsh (2006, p.200) points out that these questions are extended further by curriculum scholars such as Apple (1998), Posner (1998) and more recently by Ross (2000) to “include broader, more politically sensitive questions:

- What should count as knowledge? As knowing? What does not count as legitimate knowledge?
- Who defines what counts as legitimate knowledge?
- Who shall control the selection and distribution of knowledge?” (Marsh, 2006, p.200).

It needs to be acknowledged here that Bernstein (1971) developed these theories to argue about the relationship between education and social class, and did not develop his theories in relation to the IB programs or IB World schools. However, I believe that Bernstein’s theories provide a sound basis to



analyze what goes on in educational settings, particularly with curricular orientations and what rules in effect come into play through curriculum recontextualization when curricular discourses are moved from the ORF to the PRF (Cause, 2010, p.4). As a researcher, I also believe that Bernstein's theories offer the required analytical framework and the rigor to explore complex and intricate curriculum issues that may not necessarily be obvious to the casual observer.

#### **2.2.6 A review of the IB Programmes and Erickson's model in the light of Bernstein's Theoretical Framework**

I considered it essential to include the three IB curriculum programmes in the literature review chapter earlier (even though the school has not adopted the IB MYP), not only to be able to situate Erickson's (2008) model of the Conceptual Curriculum programme created by the school to bridge the IB PYP and the IB DP, but also to view the curriculum programmes in the light of Bernstein's (1996) theoretical framework that this study employs to analyze the Conceptual Curriculum programme created by the school.

In the light of Bernstein's (1971) theoretical framework, the IB DP can be described as a "strongly classified collection code type" of curriculum, with some overarching elements of the "integrated type of curriculum", in that the subject areas (within the hexagonal frame as indicated before) are strongly insulated from each other, thereby promoting "strong classification and framing" (Cambridge, 2011b). In this sense, the IB DP is considered to be more of a prescriptive curriculum with a disciplinary focus, as compared to the IB PYP and the IB MYP that are curricular frameworks that promote inter-disciplinary thinking (IB 2008b, p.6).

"Prescriptive (curriculum) definitions provide us with what "ought" to happen, and they more often than not take the form of a plan, an intended program, or some kind of expert opinion about what needs to take place in the course of the study" (Ellis, 2004, p. 4).

Within the prescriptive nature of the IB DP, components such as the Extended Essay and the Theory of Knowledge components foster interdisciplinary thinking to some extent, thereby falling within the “integrated code”. However, even in these components of the IB DP, “inter-disciplinary topics such as biotechnology are expressly discouraged as topics for EE exploration” (Doherty 2010, p.8) and thereby, through the limited choice given to students, the IB DP not only retains the strong classification, but also deepens the strong framing evident in the IB DP programme.

The IB MYP as well as the IB PYP curricular frameworks, on the other hand, can be described as “weakly classified, integrated code” type curricula with weak boundaries between teachers and students. Both these frameworks promote the idea that teachers and students spend significant time exploring topics in greater depth and detail (Hill, 2003) through an approach that promotes interdisciplinary thinking and through “weak pacing”, where students are given some control over the time of acquisition of knowledge (Bernstein, 1975). Both the IB PYP and the IB MYP programs also require investment of time towards collaborative planning between teachers.

Summarizing the philosophy of each of the IB programs as described above, the IB curriculum framework (IB PYP, IB MYP and the IB DP) can thus be highlighted as follows in the light of Bernstein’s (1971) theoretical framework:

- IB PYP: weakly classified/integrated type curriculum;
- IB MYP: weakly classified/integrated type curriculum;
- IB DP: strongly classified/closed curriculum; market orientation: responding to market situations.

In the light of Bernstein’s (1971) theoretical framework, it can be argued that the concept-based curriculum philosophy as proposed by Erickson (2007), fosters interdisciplinary thinking, thereby promoting weak classification and framing. Such an approach also requires students to be provided with sufficient

time for “acquisition” (Bernstein, 1971). This also necessitates weak boundaries between teachers and students.

The development of the Conceptual Curriculum programme by the school in this study that aims to foster teaching for conceptual understanding requires teachers to play an active role in curriculum development by selecting and arranging the curriculum content, thereby inherently requiring teachers to become actively involved in the curriculum “recontextualization” (Bernstein, 1996, p.47) process.

Since the Conceptual Curriculum programme bridges the IB PYP and the IB DP, there is also an “interaction of multiplicity of pedagogic fields” (Cambridge, 2011b, p.129). A closer look at such “interactions with the multiplicity of Official Pedagogic Fields that need to be negotiated” (Cambridge, 2011b, p.129) is what makes this study both complex and interesting.

### CHAPTER 3: THE RESEARCH DESIGN

Yin (2003) proposes that the case study researcher will have to create a plan that begins with the articulation of a succinct research question, followed by devising the various steps that will help answer the research question. Yin (2003) points out that devising the various steps to answer the research question includes both the collection and analysis of data. This then becomes the research design, which can be described as follows:

“A research design is a *logical plan for getting here to there*, where *here* may be defined as the initial set of questions to be answered, and *there* is some set of conclusions (answers) about these questions. Between “here” and “there” may be found a number of major steps, including the collection and analysis of relevant data.” (Yin, 2003, p.26, emphasis in original).

In terms of the case study research design, Yin (2003, p.27) identifies five components:

- a) “a study’s questions,
- b) its proposition, if any,
- c) its unit(s) of analysis,
- d) the logic linking the data to the propositions and
- e) the criteria for interpreting the findings” (Yin, 2003, p.27).

Within the above five components, components a, b and c refer to what data is to be collected, and components d and e refer to what is to be done after the data has been collected (Yin, 2003).

### 3.1. Method versus Methodology

Before embarking on a research project, Opie (2007, p.21) recommends that:

“researchers make their position clear in terms of the methodologies and methods they use in accordance with their ontological positions, as failing to do so makes them vulnerable to criticisms of unacknowledged bias”.

Firstly, I believe that there needs to be some clarification on the terms “method” and “methodology”, since my reading of educational literature revealed that while some authors use the terms very precisely (thereby indicating a clear distinction between the two), there are some authors who use the terms interchangeably (presumably because they see little distinction between the two) and yet others who are “flexible in their usage of the terms (and hence) use them interchangeably” (Newby, 2010, p.49). In this regard, Opie (2007, p. 15) points out that:

“Method and methodology are not the same thing, and being aware of how they differ...is an important part of a research project”.

Opie (2007, p.16) offers further clarification on the difference between the terms by saying:

“*Methodology* refers to the theory of getting knowledge, to the consideration of the best ways, methods or procedures, by which data that will provide the evidence basis for the construction of knowledge about whatever it is that is being researched, is obtained...”

Thus, here, “methodology” not only includes the methods and how the chosen methods are put to practice, but also the analysis of those methods. Cohen et al (2007, p.47) support this notion by pointing out that:

“By methods we mean the range of approaches used in educational research to gather data which are to be used as a basis for inference

and interpretation for explanation and prediction. If methods refer to techniques and procedures used in the process of data-gathering, the aim of methodology then is to describe the approaches...”

Methodology, on the other hand, as Newby (2010, p.51) points out, brings together different methods:

“At its simplest, for the practical researcher, methodology is how the toolkit of research methods is brought together to crack an individual and specific research problem”.

In this sense, a Case Study will be a typical example of a “methodological approach” that brings together various methods in order to achieve the research objective. Thus:

“A Case Study is an example of methodological approach, whereas *Procedures*: often referred to as methods, are the specific research techniques that are used in order to collect and then analyze data. Thus a Case Study (methodology) may involve interviews, questionnaires, observation and documentary analysis (procedures)” (Opie 2007, p.16, emphasis in original).

### **3.2 Why a Case Study?**

“One way of starting your inquiry might be to amass a lot of statistics ... but statistics is not what education is really about. Starting to understand the world of education means bringing to life what goes on in the setting and how this is connected to a broader panoply of real-life...Case studies fill this need. They can provide both descriptive richness and analytic insight into people, events, and passions as played out in real-life environments.” (Yin 2005, p.xiv)

A Case Study is defined as “an empirical inquiry that investigates a contemporary phenomenon within its real-life context” (Yin 2003, p.13). Case studies are also particularly relevant when the research addresses descriptive

or explanatory questions such as: *what* happened or *how/why* did it happen (Shavelson and Towne 2002, pp.99-106).

A case study approach was adopted to capture “the close-up reality and thick description of participants’ lived experiences” (Cohen et.al., 2000, p.182). A case study approach also offers an important advantage in gaining a holistic view of the process, because it enables us to:

“study many different aspects, examine them in relation to each other, view the process within its total environment...” (Gummensson 1988, p. 76).

Stake (1994, p.244) observes that a case study is particularly valuable when the “opportunity to learn is of primary importance”. Besides, rather than relying on “derived data”, the opportunity that a case study provides for “data collection in natural settings” (Bromley 1986, p.23) is also valuable in inquiries involving studies of curriculum, where the research requires “intimate contact with daily institutional life” (Chaffee & Tierney 1988, p.13).

This case study can be described as a combination of “instrumental and intrinsic” studies (Stake 1994, p.237). The study is instrumental in nature because it involves a particular case being examined in-depth, in order to provide insight on issues (instrumental), that will facilitate examining the findings in the light of the theoretical framework (Bernstein’s). It is intrinsic in that it explores a particular case to gain a better understanding, because of the researcher’s interest in it. Yin (2004, p.6) identifies three minimum requirements for an effective case study design:

“defining the case, justifying the choice of a single or multiple case study and adopting a theoretical framework to define the perspective of the case study.”

Though singular case studies are often criticized on the grounds of lack of generalizability and openness to bias in interpretation (Stake 1995, p. 6-9), the

desire for depth versus breadth has motivated my choice of a singular case study over multiple case studies. Moreover, as pointed out by Yin (2003, p.40):

“A single case can be used to determine whether a theory’s propositions are correct or whether some alternative set of explanations might be more relevant”.

Drawing on a wide range of literature published on the case study approach to research, Grunbaum (2007, p.82) identifies five generic characteristics of a case study that help indicate how “a meta understanding” of the “unit of analysis” and “case” can be conceptualized. Firstly, Grunbaum (2007, p.82) highlights that the “study object” in a case study is related to:

“people, more specifically, interpretations of the social actors’ perception of a given phenomenon or the meaning actors attribute to a phenomenon. Moreover, individuals are studied in their natural environment” (i.e. social actions and social structures) (also see Bonoma, 1985, p.204; Yin 2003, p.13; Riege, 2003, p.80).

This study seeks to explore teacher perceptions about the development of a concept-based curriculum programme and the study is conducted in their natural environment (the school). Secondly, in a case study approach to research, Grunbaum (2007, p. 82) points out that the researcher is interested “in a contemporary phenomenon” and that “historical studies are thus excluded” (i.e. contemporary dimension, Bonoma, 1985, p.204; Agranoff and Radin 1991, p.204; Yin 2003, p.13).

Thirdly, Grunbaum (2007, p.82) highlights that one’s perspective needs to be “holistic when trying to understand and explain what happens and why it happens” and that “it thus becomes important to understand and identify contextual factors that surround the unit of analysis” (i.e. a holistic dimension is essential). Researchers such as Lincoln and Guba (1985, p.376), Merriam (1988, p.xiv), Punch (2005, p.145), Fisher (2004, p.52), Yin (2003, pp. 42-46), Patton (2002, p.447) and Stake (2000, p.440) also support this notion.



In the school in this study, in order to explore teacher perceptions about the development of the Conceptual Curriculum programme, exploring and understanding the contextual factors such as the reasons why the school did not adopt the IB MYP for instance, also needed to be acknowledged to arrive at a clear understanding of the case. More about the “unit of analysis” has been explained in Chapter 5.

The fourth point Grunbaum (2007, p.82) identifies is that:

“case studies are primarily qualitative and the objective can be descriptive, exploratory and/or explanatory, that is, they can be theory generating or contribute to modifications of theory” (i.e. multi research purpose dimension: Eisenhardt, (1989, p.535); Feagin, et al., (1991, p. 3); Miles and Huberman, (1994, p.17); Perry, (1998, pp. 788-791); Wesley et al., (1999); Healy and Perry, (2000)).

The fifth point to be noted is that the researcher has “no control of crucial events evolving in the study’s context” (Grunbaum, 2007, p.82) (i.e. controllability dimension: Denzin, (1978); Merriam, (1988, p. 6-9); Amartunga and Baldry (2001, p.99) and Yin (2003, pp. 7-8)).

The sixth point Grunbaum (2007, p.82) highlights is that, the researcher “applies numerous data sources in the search of understanding” (i.e. “triangulation dimension” : Bonoma, (1985, p.203); Merriam, (1988, p.16); Agranoff and Radin (1991, p.204); Parkhe, (1993, p.259); Stake, (1995); Punch, (2005, p.145); Robson (2002, p. 178); Yin (2003, p.97-101); Feagin et al., (1991, p.2)). The various data sources applied in this study will be explained in detail further on.

The seventh point Grunbaum (2007, p.82) raises is with regard to how the data that is collected is analyzed and reported, through “rich and contextual accounts” that are produced based on the case study (i.e. “thick description dimension”, Guba and Lincoln, (1981, p.375); Lincoln and Guba, (1985);

Parkhe, (1993, p.256); Morris and Wood, (1991); Amaratunga and Baldry, (2001, p.99); Patton, (2002, p.46)).

It is important to acknowledge at this point that choosing the right methodology and methods, along with creating the appropriate research design, is not straightforward or easy for the researcher. Most of these decisions will depend on “where the researcher is coming from in terms of their philosophical position and their fundamental assumptions concerning:

- “Social reality - their ontological assumptions,
- The nature of knowledge - their epistemological assumptions and
- Human nature and agency - specifically their assumptions about the way in which human beings relate to and interact with their environment.” (Opie 2007, p.18).

### **3.3 Ontology, Epistemology and Axiology**

Hitchcock and Hughes (1995, p.21) point out succinctly the relationship between ontology, epistemology, methodology and methods :

“Ontological assumptions (assumptions about the nature of reality and the nature of things) give rise to epistemological assumptions (ways of researching and enquiring into the nature of reality and the nature of things); these in turn give rise to methodological considerations; and these, in turn give rise to issues of instrumentation and data collection.”

Opie (2007, pp. 21-22) explains how ontology and epistemology influence the choice of methodology and methods, with the following example:

“In terms of research design and choice of procedures, if the assumption is that knowledge is real, objective, and out there in the world to be captured, researchers can observe, measure and quantify it. However, if it is assumed to be experiential, personal and subjective, they will have to ask questions of the people involved. These differences are much the

same as those identified with regard to ontological assumptions. Research which proceeds from the epistemological assumption that knowledge is experiential and subjective will usually place considerable emphasis on the accounts given by informants - either verbally in interviews or written and in response to questionnaires.” (Opie 2007, pp. 21-22)

Added to ontology and epistemology is axiology, which can be defined as:

“the values and beliefs that we hold that move us beyond regarding research methods as simply a technical exercise and as concerned with understanding the world; this is informed by how we view our world(s), what we take understanding to be and what we see as the purposes of understanding, and what is deemed valuable” (Cohen et al, 2011, p.3).

As a researcher, I believe that knowledge is subjectively experienced and is the result of “human thought as expressed through language” (Opie, 2007, p.20). Hence, knowledge is experientially and socially constructed. As a practitioner, I strongly believe that there is significant meaning and value in harnessing teacher perceptions and experiences in school-based curriculum development initiatives. This study is particularly aimed at exploring the teacher perceptions and experiences in the school-based curriculum development initiative of developing the Conceptual Curriculum programme and what the intended and unintended outcomes are therein.

This study embraces the notion that the reality that is socially constructed through “the dynamic interaction between the researcher and participant” is central to capturing and describing the “lived experience of the participant” (Ponterotto, 2005, p.131). Hence, I have adopted a case study methodology that is informed through various methods such as reading and analysis of curriculum documents, conducting structured interviews, and the distribution of a web-based questionnaire to teachers.

### **3.4 The Positivist and Interpretivist Research paradigms**

A research paradigm is “a way of thinking about a subject” (Newby, 2010, p.44) and in this sense, the concept of a paradigm:

“functions at a higher level than methodology; it ties the way a researcher works to ideas about what it is appropriate to investigate and on what basis the research output should be considered to be a truth. In other words, it links research philosophy and the practice of research” (Newby, 2010, p.44).

Cohen et al (2011, p.31) note that the positivist and interpretivist approaches to research strive to understand phenomena through two different lenses:

“Positivism strives for objectivity, measurability, predictability, controllability, patterning, the construction of laws and rules of behavior, and the ascription of causality; the interpretive paradigms strive to understand and interpret the world in terms of its actors. In the former, observed phenomena are important; in the latter, meanings and interpretations are paramount...”

Each of the above paradigms demand different types of data and in this regard, Newby (2010, p.142) points out that two sources of data give us access to different types of information: qualitative and quantitative data sources. However, quite often, the nature of the research question demands that the researcher draw from a combination of the above sources of data, which would then become a “mixed method” approach (Newby, 2010, p.46). This is a practical approach to research, “premised on pragmatic ontologies and epistemologies” (Cohen et al (2011, p.23).

### 3.5 Quantitative, Qualitative and Mixed methods

Newby (2010, p.45) argues that a quantitative approach to research can be considered the “strongest case for being a paradigm since these have a precise idea of how truth can be determined using a combination of statistical analysis and logical deductive reasoning to draw inferences from the evidence presented...and have logically consistent procedures through which to pass the evidence and reach a conclusion”. Newby (2010) also clarifies that this is because, in quantitative approaches, the researcher is not controlled or “swayed” by emotions and their only aim is to seek the truth.

Contrary to the quantitative approaches, Newby (2010, p.46) points out that qualitative analysts do not believe that there is a single truth and that “people can subscribe to different views”. In this approach, evidence may not necessarily take the form of numerical data, but would value the idea that:

“Relationships, character, emotions and all other ways that we live our lives and express ourselves are legitimate sources of information that can be used to make sense of the world” (Newby, 2010, p.46)

Studies that place “emphasis on people’s lived experience” (Miles and Huberman 1994, p.10) are fundamentally well-suited for qualitative data analysis and aim at “locating the *meanings* people place on the events, processes, and structures of their lives: their “perceptions, assumptions, prejudgments, presuppositions” (Van Manen 1977 in Miles and Huberman, 1994, p.10). Given these characteristics, Newby (2010, p.46) argues that qualitative research can also be described as a “research paradigm”.

In the mixed method approach, “there are no concepts or beliefs that anchor mixed methods” (Newby 2010, p.46) and the only distinguishing feature that this approach has is its “pragmatism”:

“A mixed methods approach downplays the influence of philosophy altogether because the need for pragmatism is paramount, because of

the importance placed on the issue being researched and because of the need to find an answer to a specific question...and in this sense if we mix methods to obtain and analyze data...and combine methods to construct arguments that are compelling...[it] will help answer the question..." (Newby, 2010 pp. 46-47).

Thus, a mixed method goes beyond "quantitative and qualitative exclusivity or affiliation" and is a "pragmatist paradigm" (Onwuegbuzie and Leech, (2005a,b); Johnson et al. (2007, p.113) and Teddlie and Tashakori (2009, p.4)), which draws on and integrates both numerical and narrative approaches. Pragmatism is essentially practical rather than idealistic; it is "practice-driven" (Denscombe, 2008, p.280) and is a "matter of fact approach" (Cohen et al, 2011,p.23). In this regard, Feilzer (2010, p.14) notes that:

"rather than engaging in the debate over qualitative or quantitative affiliations, it (mixed method) gets straight down to the business of judging research by whether it has enabled the researcher to find out what he or she wants to know, regardless of whether the data and methodologies are quantitative or qualitative"

### **3.6 Mixed Method**

Cohen et al (2011, p.21) draw on researchers such as Ercikan and Roth (2006) to argue against:

"the polarization of research into either quantitative or qualitative approaches, and their associated objectivity and subjectivity respectively, as this is neither meaningful nor productive and because, in fact there is compatibility between the two."

Cohen et al (2011, p.22) further argue that the world is not "exclusively quantitative or qualitative"; it is not an "either/or world". Qualitative and quantitative methods represent only one, perhaps not a very useful way of classifying methods (Gorard and Smith, 2006, p.61). There certainly is a need

for “less confrontational approaches” to be adopted between different research paradigms (Denzin 2008, p. 322) that provide a greater convergence between the two (Brannen, 2005).

Researchers such as Greene (2008, p.20) suggest that a “mixed method way of thinking” recognizes that there are many legitimate approaches to social research and that as a corollary, a single approach on its own will only yield a partial understanding of the phenomenon being investigated.

The above notion is also supported by researchers such as Denscombe (2008, pp. 272-273), who suggests that mixed method research can:

- a. “Increase the accuracy of data,
- b. Provide a more complete picture of the phenomenon under study than would be yielded by a single approach, thereby overcoming the weakness and biases of single approaches,
- c. Enable the researcher to develop the analysis and build on the original data and
- d. Aid sampling (an example where a questionnaire might be used to screen potential participants who can then be approached for interview purposes) “ (Denscombe 2008, pp. 272-273).

Such a mixed method approach involves:

“Collecting, analyzing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon” (Leech and Onwuegbuzie, 2009, p.265).

Johnson et al (2007, pp.119-121) give many different definitions of mixed method approach to research and suggest that these definitions vary according to “what is being mixed, where and when the mixing take place, the breadth and scope of the mixing, the reasons for the mixing, and the orientation of the research”. Regardless of the fact that it is beyond the scope of this study to review all these different definitions, I believe it is important to recognize that

the significance of these different views is that “mixed methods operate at all stages and levels of the research” (Cohen et al, 2011, p.22).

Cohen et al (2011, p.22) point out that such an approach sees mixed methods as often being implicit in all stages of research. This notion is also supported by Yin (2006, p.42) who views mixed methods as “entering the stages of: research questions; units of analysis; samples; instrumentation and data collection; and analytic strategies”. Yin (2006, p.46) further argues that the stronger the mix of methods and their integration at all stages, the stronger is the benefit of mixed method approaches.

In such approaches, rather than the methodological preferences of the researcher, the research is driven by a set of questions (thus often more than one in number) that require the collection of both quantitative and qualitative data (Cohen et al. 2011, p.23). In this regard, Tashakkori and Creswell (2007, p.207) argue that a “strong mixed methods study starts with a strong mixed methods research question” and that such a question could ask “what and how” or “what and why”. Thus, the research question by itself is a “hybrid” question versus a purely quantitative or qualitative question. Such an approach is considered particularly important if the “intention of the researcher is to understand the different explanations of the outcomes” (Cohen et al. 2011, p. 25).

In terms of the research question, Cohen et al (2011, p.24) point out that:

“The research question might be broken down into separate sub-questions, each of which could be either quantitative or qualitative, as in ‘parallel’ or concurrent mixed methods designs...and here, qualitative data might be subsequently quantified into the numbers of responses expressing given reasons, or the quantitative data subsequently might be qualitized in a narrative case study”.

This notion is also supported by researchers such as Newby (2010, p.142), who point out that:



“Some people believe that qualitative characteristics are not capable of being measured. This is wrong...it is perfectly feasible to count the number of people who share a certain characteristic.”

Such a mixed method approach to research will thus involve:

“Collecting, analyzing, and interpreting quantitative and qualitative data in a single study or in a series of studies that investigate the same underlying phenomenon” (Leech and Onwuegbuzie, 2009, p.265).

In this sense, it is important to note that: “not only must quantitative and qualitative data be mutually informing, but the *research design* itself has to be set up in a way that ensures that integration will take place...” (Bryman 2007, p.13, emphasis my own).

Newby (2010, p.134) recommends that, when adopting a mixed method approach as a researcher, one will need to “identify and follow through on the requirements for both quantitative and qualitative approaches and must:

- Link your research question(s) to appropriate quantitative and qualitative procedures,
- Determine the sequence of research approaches (will qualitative data inform quantitative analysis? Are they collected together or one after the other?), paying particular attention to the resource implications of methods that you will be using at the same time so that you are sure you will be able to manage them,
- For each method, determine how you will collect and analyze data and
- Consider how you will bring the data together. Will you convert it to a numerical standard or a qualitative standard?” (Newby, 2010, p.134).

The following section explains how the above recommendations have been applied to this study. Figure 1 outlines the steps involved in building the research design in this study:

### Research Questions:

RQ 1: What are teacher perceptions about the development of a concept - based curriculum program in one IB World School in the Middle East?

RQ 2: What were the intended and unintended outcomes of such a school-based curriculum development initiative?

#### **STEP 1: WHY NOT THE MYP? [Preliminary stage of the study]**

- Structured Interviews:
  - o Former director : e-mail
  - o Current secondary principal : interview/e-mail
  - o Current director : e-mail
  - o Teacher : interviews

#### **STEP 2: PRELIMINARY UNDERSTANDING OF THE CONCEPTUAL CURRICULUM [Understanding the Unit of Analysis]**

- o Analysis of curriculum documents (Qualitative)
- o Structured Interviews : 4 teachers (Qualitative)

#### **STEP 3: TEACHER PERCEPTIONS AND INTENDED/UNINTENDED OUTCOMES**

- Drafting the questionnaire
- Piloting the questionnaire
- Administering the questionnaire (Quantitative and Qualitative)
  - o Some responses are “quantified” : tallied according to the number of teachers expressing a particular opinion.
  - o Some responses (all open-ended questions) cyclically coded to identify emerging categories and responses.

Figure 1: Steps involved in building the Research Design in this study

### **3.7 Designing the Data Collection Instruments**

The following sub-sections explain the procedures undertaken in designing the data collection instruments. The factors that led to the choice of the instruments are also discussed.

#### **3.7.1 Interview Schedule: Semi-Structured or Structured?**

The primary purpose of conducting interviews before administering the web-based questionnaire was to gain a preliminary understanding of the factors that led to the development of the Conceptual Curriculum programme. At first, I considered conducting in-depth, semi-structured interviews to tap into the possibility that they would provide “many of the characteristics of a prolonged and intimate conversation” and be a “powerful research tool”, capable of producing “rich and valuable data” (Punch 1998, p.178). However, a possible limitation I had to be wary of while conducting face-to-face interviews was that participants sometimes end up providing responses that the researcher wants to hear. This is particularly an issue, when the research participants are already well known to the researcher. As was the case in my study, Glesne (2006, p. 31) points out:

“When studying in your own backyard, you often already have a role - as teacher or principal or case worker or friend. When you add on the researcher role, both you and those around you may experience confusion at times over which role you are or should be playing”.

Since the participants in this study are the teachers in the school where I work, I evidently experienced this danger in a few situations. For example, as one of the respondent said during an initial discussion before the interview:

“You know me Sudha...I take these things (Conceptual Curriculum) very seriously and do the right thing...and of course you can correct me if my answer is wrong...” (initial discussion: 16<sup>th</sup> April)

This response kept me quite worried for many days, for two reasons. Firstly,

the respondent was relating the fact that she “knew me” (and vice versa) and possibly expecting me to draw inferences from her responses based on what I already knew about her understanding and expertise in the Conceptual Curriculum. Secondly, it seemed that the respondent was under the impression that there are some “right” and “wrong” answers to the inquiry.

At this point, I worried that my data collection would not elicit any significant information and that the confusion among participants between my roles as a staff member and that of a researcher would result in a large pile of data that would not add value to the study. This would also impact the validity and reliability of the study. I needed to think and reflect on this for many days, particularly to get over my fears and apprehensions.

I turned to journal writing (see Appendix: 4) and started to make notes of these situations. Janesick (1998, p.24) points out that journal writing is “a type of connoisseurship by which individuals become connoisseurs of their own thinking and reflection pattern, and indeed their own understanding of their work” and argues that journal writing is “a tangible way to evaluate our experience, improve and clarify one’s thinking, and finally become a better scholar” (Janesick 1998, p.3). Therefore, I decided to write down each of these experiences in my journal, so as to be able to reflect on this issue later on.

Firstly, I noted in my journal that participants should to be able to distinguish between my role of being a researcher from that of being a staff member and colleague. I also noted that I had to choose participants for the face-to-face interviews who would understand and maintain the distinction between my two roles. Secondly, participants needed to know that while collecting data for the study, there was in fact no right or wrong answer.

Once this was sorted out, I ran into the issue of teachers using the opportunity to see me as a “sounding board” to share their grievances with me about things that had no relation to the study. For example:

“Well...I can talk about XXX because she has left the school now...and as a curriculum leader, I am not sure she actually understood how the actual philosophy of the Conceptual Curriculum works...” (initial discussion: 16<sup>th</sup> April)

Reflecting on this, I also decided to reiterate my role as the researcher and to reinforce the purpose of the interview. Besides this, I also decided to keep ready some “funnel questions” (Cohen and Manion, 2007, p.357) that would help gear the respondent back to the focus of the study. Noting down these learning experiences also helped me to overcome my anxiety to some extent and to design strategies that would help me tackle these issues.

Another interesting challenge I encountered at this early stage was when one of the respondents said:

“Sudha, you have been out there in the trenches with us when we were initially struggling with this whole idea of a concept-based curriculum philosophy...and I am glad you have taken yourself and all of us on board with such enthusiasm...more importantly, I know you will understand our feelings and what we are saying much more than an outsider researcher...”(initial discussion: 17<sup>th</sup> April)

While on the one side I was much appreciative of the empathetic approach and support this colleague of mine was offering, this response also kept me considerably worried for many days as I did not want much to go unsaid in the data collection process, simply because respondents thought “I knew these things already”. I decided to create a ready reference manual with some probing questions that I could use depending on the situation, though I was also worried that probing on something that I apparently “already knew” would aggravate respondents (DeLyser, 2001). However, I made sure that I began the interview by saying, “you will now be talking to Sudha the researcher and not Sudha your colleague and you will kindly need to explain all that you are saying in detail as if you were talking to a stranger”.

Based on all of the above experiences, I also decided that structured interviews would be a better option. It also justified my decision to turn to the web-based questionnaire as the major instrument for collecting data from all teachers on their views about the development of the Conceptual Curriculum programme. I believed that this medium would not give much room to participants to get into conversational-style discussions that were not focused on the topic of inquiry, besides helping to avoid some of the nuances described above.

### **3.7.2 Designing the Web-based Questionnaire**

A web-based questionnaire was considered for its usefulness in gathering a large amount of data within a short time. It was important to bear in mind that, in a questionnaire, keeping the responses focused on the question is a challenge since the interviewer is not present to prompt or re-direct the respondent when respondents embark on a different direction to what the question is seeking to ask. However, questionnaires also have the advantage of allowing the respondents to take their time, without being “put on the spot” or feeling under pressure. The wordings of the questions were read many times to ensure that they brought forth what the question was seeking to find out and at the same time, they did not “inadvertently shape the content of an answer” Kvale (2005, p.155).

Burton et al. (2008, p.162) point out that adopting a mixed methodology helps significantly towards “enhancing the validity of research outcomes”, while quantitative findings provide a “direct impact to findings...particularly direct quotations that exemplify, give depth to the point the findings make”. Thus, within the questionnaire, while some questions provided teachers with the option to choose from answers (that would facilitate quantitative data analysis), the space provided for adding comments enabled teachers the opportunity to explain their choice, thereby adding depth to the responses.

Cohen et al (2003, p.258) point out that “the appearance of the questionnaire is vitally important. It must look easy, attractive and interesting rather than complicated, unclear, forbidding and boring”. Researchers such as Bell (1987, p.64) stress the importance of the appearance of the questionnaire by noting that: “an excellently prepared questionnaire will lose much of its impact if it looks untidy”. Bell’s (1987, p.64) “common-sense” guidelines on the format of the questionnaire were also borne in mind in terms of the following:

- “The questionnaire is typed,
- Instructions are clear,
- Questions are evenly spaced,
- Try to keep any response boxes aligned – preferably right justified,
- Allow a space on the right of the questionnaire for analysis,
- Be critical of the questionnaire and ask what impression would it leave if you were to receive it and
- Take care in the ordering of the questions. Leave any sensitive material or complex questions until later in the questionnaire.” (Bell 1987, p.64)

Since web-based questionnaires offer formatting guidelines that are easy to incorporate, this option was chosen. The web-based tool was chosen due to its user-friendly interface [[www.surveymonkey.com](http://www.surveymonkey.com)]. It was also noted that the school in the study often uses this tool to gather feedback from teachers on other school-related matters. Thus, since teachers would already be familiar with the interface, it would eliminate the requirement of extensive training for teachers to use this interface. Special care was also taken in the sequencing of the questions, in order to strike a balance between keeping the participants engaged and at the same time keeping the questions focused on the topic.

### **3.8 Importance of a Theoretical Framework**

Patton (1990, p.218) points out the importance of the “researcher not entering the field with a completely blank slate”, thereby highlighting the necessity of having in mind “some way of organizing the complexity of reality... a basic framework that helps to highlight the importance of certain kinds of events, activities and behaviors”. Hartley (1994) supports this notion by highlighting that the importance of a theoretical framework cannot be ignored when undertaking case studies, as doing so could set out the danger of the researcher providing descriptions of observations without meaning. It is also important to note that using case studies as a methodology demands special skills on the part of the researcher to be able to collect and analyze data simultaneously (Yin, 2004, p.3). In this sense, identifying and establishing a theoretical framework helps avoid the danger of mixing evidence and interpretation.

Besides seeking to explore teacher perceptions about the development of the Conceptual Curriculum programme, this study sought to explore the intended and unintended outcomes when broad and open-to-interpretation curriculum philosophies, such as that of Erickson’s (2008) philosophy of concept-based curriculum, is recontextualised (from the Pedagogic Recontextualization Field (PRF) to the Official Recontextualization Field (ORF)). As Bernstein’s (1975) theories offer sufficient sophistication and scope to analyze curriculum recontextualization, this study examined the Conceptual Curriculum programme developed by the school in this study, through Bernstein’s (1975) theoretical framework.

### **3.9. Validity and Reliability**

Using a case study methodology raises some methodological concerns that need to be borne in mind before undertaking the study. “Triangulation” (Cohen et al. 2011 p. 195) through multiple data sources such as analysis of documents, structured interviews and a web-based questionnaire helped



ensure “construct validity” (Yin 2003, p.34). The aim of ensuring construct validity is to avoid misinterpretation of data when undertaking case studies. In this regard, early drafts of the written reports were made available for participants to review since :

“if the informants or audience members agree with the interpretation of the investigators, then this provides evidence for the credibility of the results” (Tashakkori and Teddlie 1998, p 92).

However, it was essential to also bear in mind that:

“Different methods might point in a similar direction but are unlikely to meet at some precise, unequivocal point of reality ...and one should avoid the assumption that use of methodological triangulation can prove that the data or analyses are absolutely correct” (Denscombe 2003, p. 134).

Patton (2002, p 248) also argues that it is not appropriate to expect the same findings from different data sources, as different types of data may capture different types of information. Therefore, inconsistencies in findings across different types of data can be seen as helpful towards theorizing about them:

“Finding such inconsistencies ought not to be viewed as weakening the credibility of results, but rather as offering opportunities for deeper insight into the relationship between inquiry approach and the phenomenon under study.”

Internal validity is “the degree to which we can trust the conclusions/inferences of the research regarding the ‘causal’ relationship between variables/ events” (Tashakkori et al, 1998, p 65-67). External validity, on the other hand, “pertains to the degree to which your obtained results can be generalized to other ways of measuring each construct” (Tashakkori et al, 1998, p 65-67). Though obtaining generalizable conclusions was not the aim of this study,

maintaining internal validity was still a pertinent concern. Respondent validation proved valuable in this regard:

“Respondent validation, which is also sometimes called member validation, is a process whereby the researcher provides the people whom he or she has conducted research with, an account of his or her findings. The aim of the researcher is to seek corroboration or otherwise of the account that the researcher has arrived at” (Bryman 2001, p.273).

Thus, as already mentioned before, at various points of writing up the report, the drafts were made available for respondents to review. As a researcher, I was also conscious of the balance required between research agendas and respectful treatment of participants, as well as the importance of a high level of sensitivity in terms of the data collected. I believe that this is particularly important when some questions are of a sensitive nature and could cause discomfort to the participants, because of the possibility of revealing information or opinions about the school in which they are currently employed. Carefully planning the wording of the questions helped minimize participant discomfort.

Reliability deals with how the findings can be replicated in other studies, so as to ensure that the findings are not flawed or biased (Yin, 2009). A systematic and thorough documentation procedure has been followed in order to ensure reliability of the study, in the expectation that a second analysis of the same case would generate similar results. Thus, a plan was devised (adapted from Yin, 2009, pp.41-45) so as to minimize any weaknesses that could arise from undertaking a singular case study. Table 1 articulates this plan:

<b>Validity/Reliability</b>	<b>Case Study Tactic</b>	<b>Phase of the research where the tactic was applied</b>
Construct Validity	<p>Using multiple sources of evidence so as to establish the chain of evidence:</p> <ul style="list-style-type: none"> <li>• Analyzing of curriculum documents</li> <li>• Structured interviews</li> <li>• Web-based questionnaire</li> </ul> <p>Have informants review draft of the analysis and findings.</p>	<p>Data collection.</p> <p>When composing the first draft of data analysis.</p>
Internal Validity	<p>Doing explanation building.</p> <p>Using Bernstein's theoretical framework to analyze data and for explanation building.</p> <p>Have informants review drafts of the analysis and findings.</p>	<p>Data analysis.</p> <p>Data analysis</p> <p>When composing the first draft of data analysis.</p>
External Validity	Using Bernstein's theoretical framework	<p>Constructing the Research design.</p> <p>Data analysis.</p>
Reliability	<p>Develop case study database.</p> <p>Use case study protocol.</p>	<p>Data collection.</p> <p>Data collection.</p>

Table 1: Plan devised to tackle methodological concerns

### **3.10 Research Ethics**

I bore in mind that being an insider researcher has particular implications on the ethics of research. Cohen and Manion (2007, p.57) observe that : “ethical considerations pervade the whole process of research...and informed consent, confidentiality and the consequences and risks associated with participation...” thereby highlighting the three key ethical considerations that should shape the whole process of research (see also O’Leary 2010).

In terms of “informed consent of participants”, the British Educational Research Association (BERA) guidelines (2011, p.5) were adhered to:

“Researchers must take the steps necessary to ensure that all participants in the research understand the process in which they are to be engaged, including why their participation is necessary, how it will be used and how and to whom it will be reported.”

Thus, before conducting the interviews and the distribution of the web-based questionnaires, the aims of the research, the purpose of the data collection and how this information would be used were clearly explained to the participants. Participants were also ensured confidentiality: “a promise that you will not be identified or presented in identifiable form”, and anonymity: “a promise that even the researcher will not be able to tell which response came from which respondent” (Sapsford and Jupp 1998, p.319). For instance, the question in the web-based questionnaire that required teachers to indicate the subject they teach or the year level they teach was left optional so that the chances of identifying the teacher in relation to the response was avoided.

Cohen et al (2003, p.62) point out that confidentiality defines “the extent to which investigators keep faith with those who have helped them”, and that:

“The more sensitive, intimate or discrediting the information, the greater the obligation on the researcher’s part to make sure that guarantees of

confidentiality are carried out in spirit and letter. Promises must be taken seriously”.

Thus, within the scope of this research, confidentiality was promised by stating in all data collection events and mediums that: “All information provided by the school and participants of the research will be treated in the strictest confidence and pseudonyms will be used in order to protect the identity of both the school and the participants”.

Keeping the exact geographical location of the school unidentified while presenting findings was also promised for the purpose of safeguarding the identity of the school from wider readership.

As the inquiry progressed, I also realized that adhering to research ethics is not something that “gets done” by “checking the boxes” on the BERA guidelines or by talking about addressing ethics in research as a section in my writing. I have come to believe that adhering to research ethics is a continual process and that one needs to engage in it right through the research inquiry process. The challenges and dilemmas that one encounters need continual reflection and engagement, particularly when faced with insider researcher situations (see Appendix 4: Journal entry #4).

I also ensured that I adhered to the “three Rs”: “Responsibility, Rigor and Respect”, right through the research according to the guidelines recommended in the “Research Ethics Guidelines for EdD students” (University of Bath, Post Graduate Skills Record (on-line), as set by BERA, 2011).

Tolich (2004, p.101) argues that researchers should also avoid the possibilities of “research subjects involved in the study [being able] to identify each other in the final presentation of the research”. This becomes all the more relevant with the easy accessibility of information via online searches. In this regard, Floyd and Arthur (2010, p.8) point out that “whatever efforts are made to preserve anonymity, a simple on-line search will allow the most novice investigator to identify the institution”. Hence, Trowler (2011, p.3) recommends that it is best to

assume that a reader will be able to identify the institution, and hence it is paramount that the insider researcher takes all the necessary steps to ensure that the research participants are not identifiable.

Also, in all practicality, though it is acknowledged that a complete balance between being objective from a research perspective and being sensitive to participants from a professional/insider perspective may not always be possible (Bell 2005, p.168), being aware of this at all times helped avoid bias in the collection and interpretation of data.

## **CHAPTER 4- DATA COLLECTION**

This chapter explains the sequence of events that took place during the data collection procedure. Obtaining informed consent from the “gatekeepers” of the research site was the first step towards data collection. King and Horrocks (2011, p.31) define a gatekeeper as “someone who has the authority to grant or deny permission to access potential participants and/or the ability to facilitate such access”.

A written consent to conduct the research in the school was obtained via e-mail from the Director of the school, as well as the secondary school Principal. (See Appendix: 5). Once the permission was received, one-to-one meetings were arranged with the Director of the school and the secondary school Principal to discuss the aims of the research, as well as to clarify any initial concerns that could have arisen. E-mail exchanges and meetings ended on a positive and encouraging note for conducting the research.

### **4.1 Background information**

This section (and the sub-sections) provides the background information towards understanding the case.

#### **4.1.1 The School: The Site of the Case Study**

The Global American International School (GAIS - pseudonym used for anonymity) was established in the Middle East, in 2005, as an American international school offering the American Diploma program: Advanced Placement (AP) programme in the years 2005-2007. The school is recognized by the local Ministry of Education as a private international school and is accredited by the Middle States Association of Colleges (MSA) and the Council of International Schools (CIS).

The Director is assisted by two Principals (one for elementary school and one for secondary school), for the management and administration of staff and students. The Principals are assisted by the Assistant Principals, who are

responsible for student behavior and disciplinary issues. In the secondary school, a Curriculum Leader heads every department. Curriculum Leaders have the primary responsibility of supporting teachers in the development and delivery of the Conceptual Curriculum programme. The secondary school Principal also oversees the development and delivery of the Conceptual Curriculum programme in the middle school.

The school received the IB DP authorization in 2007 and the IB PYP authorization in 2009. The school discontinued the AP in the year 2007 and has since then only offered the IB DP for years 11 and 12. The school has a multi-national student and teacher body with over 75 different nationalities, thereby depicting an international teacher/student body.

Current enrollment at the school stands at 1300 students. The decision not to adopt the IB MYP was made in 2006 and the school began creating its Conceptual Curriculum programme for Grades 7-10 in 2007. The school currently offers the IB PYP program from pre-Kindergarten to Grade 6; the Conceptual Curriculum programme for grades 7-10; and the IB DP for grades 11-12.

#### **4.1.2 Why not the IB MYP?**

Gummesson (1988) points out that a case study approach to research, undertaken without prior understanding by the researcher would require the researcher to spend significant amount of time gathering simply the basic information. Thus, before embarking on data collection for answering the research questions, it was found essential to seek an understanding as to why the school did not adopt the IB MYP program, in spite of having adopted the IB PYP and the IB DP.

Since there seemed to be no meeting notes or documents available at the school that articulated this decision in writing, data for this stage had to be gathered by getting in touch with those who were involved in making this decision in 2006. Two “key informants” (Payne and Payne, 2004, p 135)



towards answering the question “*Why not the MYP*” were: one; the former Director of the school (in position from 2006-2008 since the decision to develop the Conceptual Curriculum was made in 2006); and two; the current secondary school Principal (who has been in the school since 2006).

“Key informants are different from ‘ordinary’ informants to the extent that they have *more information to impart* and are more *visible*. The usual reason for their visibility is that they occupy formal positions of authority.” (Payne and Payne, 2004, p.135, emphasis in original).

The process was initiated with a structured interview with the current secondary school Principal (see Appendix: 6). It is acknowledged that, ideally, all data collection instruments need to be piloted. However, because this interview specifically targeted only one question: “Why not the IB MYP”, the same was not piloted.

Preliminary interviews with the secondary school Principal revealed that only the IB MYP (and not any other international curricula) was considered as a possible choice for the middle school, before the school decided to develop the Conceptual Curriculum programme. Inquiring into why the school did not adopt the IB MYP, to my mind, was thus an essential starting point to the research and also an essential step in being able to situate the Conceptual Curriculum programme developed by the school to bridge the IB PYP and the IB DP.

It was gathered during the interview that the decision of not adopting the IB MYP was primarily made in 2006, by the former Director of the school, under whose leadership and guidance the school had started developing the Conceptual Curriculum. I therefore decided to get in touch with the former Director of the school. Contacting the former Director via e-mail was considered the best option since it allows the flexibility of seeking clarifications and allows the respondent to respond according to their convenience.

An e-mail was sent to the former Director explaining the aims of the research inquiry and seeking permission to solicit further information as to why the

school had decided not to choose the IB MYP. The response indicated the willingness of the former Director to participate in the study. Hence, interviews in the form of e-mail conversations were conducted with the former Director. (see Appendix: 7).

It was also gathered during the interview with the secondary school Principal that the Curriculum Committee in 2006 featured five members. Out of the five members, one member was the former Director of the school, with whom contact had been established as explained above. Out of the other three members, only two members could be traced. Contacts were made with these members via e-mail and via the social networking site: LinkedIn. One person responded via LinkedIn, but was not willing to participate in the study. There was no response from the other member. It was also gathered from the Principal that three teachers who were employed in the school at the time of taking the decision in not adopting the IB MYP, continue to serve in the school. These teachers were interviewed (see Appendix: 8) to gather data towards understanding why the school had not adopted the IB MYP. (The teachers interviewed were not a part of the decision-making process of the school not adopting the IB MYP, but were serving the school in 2006).

The former Director of the school, who was highly instrumental towards the decision of the school not adopting the IB MYP, questioned the structure and rigor of the IB MYP program in terms of it being able to provide a successful preparation for the IB DP. This view was also reinforced by the secondary school Principal who has played a crucial role in the supervision, conceptualization, documentation and eventually the delivery of the Conceptual Curriculum.

It is noteworthy to mention that the former Director of the school as well as the current secondary Principal (who were the driving forces in the school adopting the Conceptual Curriculum programme instead of the IB MYP) had extensive experience in the IB MYP programmes in their previous experiences in international schools. Two of the three teachers interviewed concurred with the

view of the former Director, while one of the respondents felt that the school should have adopted the IB MYP instead of “reinventing the wheel”.

The interview responses questioned the effectiveness of the IB MYP programme towards preparing the students for the rigorous IB DP examinations. The secondary Principal of the school revealed that the decision to not adopt the IB MYP was also influenced by factors such as time constraints, training requirements and the extent of collaborative efforts that would be required to facilitate the delivery of the IB MYP programme. Thus according to the Secondary Principal, besides the structure and rigor of the IB MYP being a challenge, the practical difficulties of developing and managing the IB MYP also seemed to have been an important factor in deciding to not adopt the IB MYP.

At this stage of the study, I was unclear as to whether the preliminary study on understanding why the school did not adopt the IB MYP would make any difference to the findings of the overall study. However, it certainly helped me as a researcher to become comfortable with approaching the main study.

The next step towards collecting data to answer the research questions was to gain an understanding of the Conceptual Curriculum programme created by the school.

#### **4.2 The Conceptual Curriculum programme documents**

“Documents of all types can help the researcher uncover meaning, develop understanding, and discover insights relevant to the research problem” (Merriam 1988, p.118),

The next logical step was thus to gather a list of pertinent Conceptual Curriculum programme documents (as well as some on-line resources). A concise list of the curriculum documents and school publications that were accessed was compiled and is provided in Table 2. The documents were selected on the basis of their potential to offer details about the Conceptual

Curriculum programme developed by the school. These were analyzed using Bernstein's Theoretical Framework, which shall be explained in the Data Analysis chapter. The relevance of the documents towards understanding the Conceptual Curriculum shall also be explained in the Data Analysis chapter.

Table 2 summarizes the list of documents accessed, why they were accessed and how the information in the documents was useful towards understanding the Conceptual Curriculum programme:

<b>No:</b>	<b>Documents Accessed</b>	<b>Reason/purpose for Access</b>
1	Curriculum Development Guide (2007)	Outlines the philosophy of the Conceptual Curriculum created by the school
2	Course Outline booklets for all grades and subjects (2007- current)	Conceptual Curriculum explained in the context of different subject areas
3	Faculty Handbook- curriculum section (2007)	Conceptual Curriculum explained for new faculty
4	School Portal- Individual Investigation Project Portal Page (current)	Individual Investigation Project explained
5	School Portal- Experiential Learning Portal Page (current)	Experiential Learning project explained
6	School Portal - Conceptual Curriculum Portal Page (current)	Conceptual Curriculum – for faculty access- overlaps with information in Faculty Handbook
7	Student Handbook - Grade 8 Service Learning (current)	Grade 8 Service Learning Project explained
8	Atlas Rubicon- Curriculum Storing software used by school (current)	Subject specific Curriculum documents – explains how teachers plan the Conceptual Curriculum

Table 2: List of curriculum documents accessed

### **4.3 The Conceptual Curriculum programme- Preliminary Structured Interviews**

Initially, three teachers and two Curriculum Leaders were identified as “key informants” (Payne and Payne, 2004, p 135) for the structured interviews, taking into consideration their longest tenure in the school (see Appendix: 9 for interview schedule and responses). Bonner and Tolhurst (2002) point out that insider researchers have a tendency to gravitate towards approaching participants with whom they feel safe and comfortable, which I avoided by using the above selection criteria.

It was borne in mind that it is essential that participants agree voluntarily to participate in the study “without coercion”, so that participants disclose “full and open information” to the researcher (Christians, 2005, p.144). All participants were informed prior to the data collection about the nature and purpose of the study. It was agreed that the early drafts of the data analysis would be made available for anyone to read, if interested. Promise of confidentiality through the use of pseudonyms was also assured.

A number of informal conversations were conducted in order to ensure “distance-reducing, anxiety-quieting and trust-building” mechanisms (Glesne, 2006, p.110). One participant requested a copy of the interview questions in advance. This participant felt that she would not be good at answering the questions on the spot and wanted to go through the questions beforehand. However, later on, this participant came back to me and requested that she would take the web-based questionnaire instead of being interviewed, to which I had to agree. The participant here had simply exercised her “power to be a critical determinant of the level and effectiveness of her participation” (Gregory, 2000, p.197).

Conducting the interviews entailed careful planning, bearing in mind that “interviews are fraught with hidden dangers and can fail miserably unless there is a good planning, proper preparation and sensitivity to the complex nature of

interaction during the interview itself” (Denscombe 2003, p.164). While approaching participants for the interview, I also took into consideration their daily timetables and meeting schedules so as to ensure that I was not demanding their time on an already busy day. I also decided on conducting the interviews in a private place, either early in the morning (before teachers started coming), or later in the afternoon (after school had ended) (see Appendix 4, Journal entry #2).

Engaging in such “strategic risk taking” by taking a “proactive response to the inevitable uncertainties encountered in any research project” (Harreveld 2004, p. 39) helped in avoiding some possible roadblocks. Interviews lasted anywhere between 25 minutes to 30 minutes. Given that a voice recorder is often considered an “indispensable tool for capturing data” (Patton, 1990, p. 348) and the possibility that it would capture the exact words of the respondents, I intended to use a recording device to gather data for the interviews.

However, much to my disappointment, participants requested that interview data be recorded by taking notes rather than being recorded on tape. This request from participants had to be complied with in order to make participants comfortable, though it made the data collection take much longer than anticipated. I typed out the responses as the respondents spoke, including verbatim quotes, though at times, I had to signal the respondent to slow down, which at times interfered with the flow of the response.

At one point, while I was conducting my first interview, I also realized that I was sometimes nodding my head (which could possibly be interpreted by the respondent as a “good/correct thinking...keep going...”). I made a note of this in my journal and ensured that this did not happen at other times and that I maintained a neutral bodily disposition at all times during the interviews.

#### 4.4. Piloting the Web-based Questionnaire

The next step was to pilot the web-based questionnaire. The importance of piloting the data collection instruments in contributing towards an effective research design cannot be overestimated; particularly considering the opportunity this offers to test the validity of the research instruments. Piloting the questionnaire also helped in revisiting the research aims so as to analyze whether the intended methods and methodology were workable and whether the same would help answer the research questions (Teijlingen and Hundley (2001, p.1) as intended.

Bryman (2001, p.155) recommends that “a pilot should not be carried out on people who might have been members of the sample that would be employed in the full study”. While this was taken into account, it was also essential to ensure that the participants included in the pilot of the web-based questionnaire had some understanding of the basic terminology used in concept-based curriculum programmes. Hence, the questionnaire was piloted with four participants: two teachers from the secondary school and two teachers from the elementary school (who were not part of my main sample).

As pointed out by Oppenheim (2001, p.47) “questionnaires do not emerge fully fledged; they have to be created or adapted, fashioned and developed to maturity after many abortive test flights.” Thus, piloting the questionnaire was an important step towards trying out every aspect of the questionnaire to ensure that it worked as intended.

Participants in the pilot were also asked to give feedback on whether any questions caused discomfort to them. One of the questions: “*Are you familiar with the IB MYP programme?*” raised concerns, as some participants questioned whether they were expected to know the IB MYP programme to teach the Conceptual Curriculum programme. Closer examination of the questionnaire revealed that this question did not, in a substantial way, contribute towards answering the research questions and hence it was

eliminated from the final draft. This was done, keeping in mind that the questionnaire should not create discomfort and doubt in the mind of teachers.

Another question that touched on some aspects of transition between the IB PYP and the Conceptual Curriculum programme was also removed, as close examination revealed that transition-related questions were not relevant to this study. (Original questionnaire see Appendix: 10). It was also important to bear in mind that the “degree of interest or intrinsic interest” (Oppenheim, 2001, p. 103) on the topic for the respondent is seen as a key element to the return of the questionnaire. It was gathered from piloting the web-based questionnaire that the topic of study and the nature of questions in the questionnaire were of interest to the teachers, since developing the Conceptual Curriculum programme was a part of their everyday teaching life.

A number of revisions were made to the original questionnaire draft in order to ensure that there was an adequate balance between being able to seek valid data and at the same time ensuring that the questions contributed towards providing illuminating data towards answering the research questions. Due consideration was also given to the length of the questionnaire, as it would impact the time required by the respondents to complete the same (bearing in mind the scarcity of time in a heavily-scheduled teacher working day). Keeping in mind that “the questions we ask will always to some degree determine the answers we find” (Maykut and Morehouse 1997, p.43), other revisions were also made. Thus, each of the questions in the questionnaire draft were scrutinized by asking: “what is this question doing here and how are we (am I) supposed to analyze it?” (Oppenheim 2001, p.47).

The original draft contained 21 questions (see Appendix: 10), which were then reduced to 15 questions in the final version (see Appendix: 11), after removing questions that were thought irrelevant in the pilot stage due to the reasons discussed above. Particular attention was also given at each stage to the possible ambiguous interpretations of the questions.



It was also noted during the piloting of the questionnaire that completing the same took anywhere between 20 to 30 minutes depending on how much time participants would dedicate to the open-ended questions. This seemed a reasonable demand on teachers' valuable time, though at times I felt that being an insider researcher I was being excessively cautious and sensitive to teacher workloads and time demands. Hence, I also ensured that being overly sensitive did not hamper the extent of data that needed to be collected to provide meaningful data.

#### **4.5 Administering the Web-based Questionnaire**

All participants in the study (fifty-six teachers in the secondary school) were given "advance warning" (Oppenheim, 2001, p.103) about the topic of study: the nature of research and the importance of participant involvement towards collecting data. Permission was obtained beforehand from the secondary school Principal to present an overview of the aims of the research with the participants during a staff meeting. Thus, before distributing the web-based questionnaire, the purpose of the research and the research questions were articulated to the teachers during a staff meeting. It was also clearly articulated in the meeting that participation in the data collection process was completely voluntary (Cohen and Manion, 2007). Verbal assurance of safeguarding participant anonymity was also guaranteed at this meeting by mentioning that questions that have the possibility of revealing one's identity (even remotely) were optional in the questionnaire.

Prior clarification was sought from the Secondary Principal on teachers' proficiency in being able to comprehend the questions in English (as staff details revealed that the school employed non-native English speakers in the Foreign Languages, Arabic and Islamic Studies departments). Assurance was given that all teachers in the secondary school were proficient in understanding and communicating in the English language and hence a translation of the questionnaire in other languages was rendered unnecessary. However, it was decided to keep the questionnaire open for an extended period of time (3

weeks) respecting those participants who may have required more time to comprehend or respond to the questionnaire. Table 3 provides a summary of the data collection and analysis sequence and schedule:

Dates	Events and sequence
November 2012	Permission received from “gate keepers” to conduct case study research at the school
December 2012	Curriculum documents list compiled and accessed
December 2012- January 2013	Reading and analyzing of curriculum documents (using Bernstein’s framework)
7 <sup>th</sup> May 2013	Why not the MYP-initial e-mail to former Director
5 <sup>th</sup> April 2013	Why not the MYP- Interview with current secondary school Principal
25 <sup>th</sup> April 2013	Why not the MYP- e-mail questionnaire former Director and current Principal
15 <sup>th</sup> April 2013	Why not the MYP- teacher interviews [2]
April-May 2013	Analysis of “Why not the MYP” (Bernstein’s framework)
16 <sup>th</sup> and 17 <sup>th</sup> April 2013	Initial discussion on Conceptual curriculum with 2 teachers and 2 curriculum leaders
18 <sup>th</sup> April 2013	Structured interviews with 2 teachers on the Conceptual Curriculum
20 <sup>th</sup> April 2013	Structured interviews with 2 Curriculum Leaders on the Conceptual Curriculum
20 <sup>th</sup> April 2013	Piloting of teacher survey with 4 teachers
21-28, April 2013	Discussion with Pilot respondents for feedback on Questionnaire
2 <sup>nd</sup> May 2013	Adjustments to web-based questionnaire
5 <sup>th</sup> May 2013	Distribution of the web-based questionnaire to teachers
June 2013- November 2013	Data Analysis
January-March 2014	Writing up First draft
May-July 2014	Writing up second draft
September- November 2014	Writing up third draft

Table 3: Data Collection Sequence and Schedule

Table 4 below summarizes the total number of teachers interviewed and the total number of teachers who participated in the web-based questionnaire:

Details	Numbers
Total Number of teachers in the secondary school	56
Number of administrators interviewed for “Why not the MYP”	3
Number of teachers interviewed for “Why not the MYP”	2
Number of teachers interviewed for the “Conceptual Curriculum”	2
Number of curriculum leaders interviewed for the “Conceptual Curriculum”	2
Total Number of teachers who completed the web-based questionnaire	47

Table 4: Details of teachers interviewed and web-based questionnaire respondent

The analysis of the data collected and the findings from the analysis are discussed in Chapter 5.

## Chapter 5- DATA ANALYSIS AND FINDINGS

### 5.1. Preparing for Data Analysis

Through a singular case study, this research inquiry seeks to explore the following research questions:

RQ 1: What are teacher perceptions about the development of a concept-based curriculum programme in one IB World School in the Middle East?

RQ 2: What were the intended and unintended outcomes of such a school-based curriculum development initiative?

The nature of the research questions therefore focused on the *why* and the *how* of the experience of building a concept-based curriculum programme, and on *what* the intended and unintended outcomes are. In such studies, Fink (2003, p.1) observes that data management techniques adopted by the researcher to “organize information so that it can be analyzed” become crucial and that the process “starts with the analysis plan and ends with the data analysis itself.” An initial “rudimentary analysis plan” was thus created and modified from the model proposed by Fink (2003, pp. 2-3) and guided by the following four key questions:

1. “What am I intending to find out?
2. What questions will generate meaningful responses that will help answer the Research Question(s)?
3. What am I intending to analyze?
4. How am I intending to analyze the data?” (Fink, 2003, pp. 2-3).

The structure of the initial analysis plan is given in Figure 2:

## INITIAL ANALYSIS PLAN

Research question:

Interview/questionnaire Question:

Interview/questionnaire question objective:

How the (Interview/questionnaire) question intends to answer the RQ:

Which of the RQ will this response be relevant for:

Codes that will be generated from this question:

Any other relevant filed notes:

Figure 2: Initial Plan for Data Analysis

The following sections shall explain in detail how the data analysis schedule and plan were put into action. I begin explaining the data analysis by identifying the “unit of analysis” (Yin, 2003, p.22).

### 5.2 Identifying the “Unit of Analysis”

Identifying the “unit of analysis” (Yin, 2003, p.22) is a major step in designing and conducting a case study. Grunbaum (2007, p.83) draws on Yin (2003, pp. 22-26) and Patton (2002, pp. 228-230) to highlight the importance of the unit of analysis by saying that:

“The unit of analysis is a central concept in connection with understanding, preparing and implementing a case study” (Grunbaum 2007, p.83)

Given the “existence of ambiguity in the meaning of a *unit of analysis* and the case itself” Grunbaum (2007, p.85) is also quick in pointing out that identifying the unit of analysis is neither straightforward nor easy, since the “distinction between the two concepts is unclear”. Researchers such as Berg (2001, p.231) distinguish between a unit of analysis and a case, maintaining that the two are different, by saying that:

“The unit of analysis defines what the case study is focusing on (what the case is) such as an individual, a group, an organization, a city and so forth”.

On the other hand, researchers such as Miles and Huberman (1994, p.25) and Patton (2002, p.447) maintain the notion that there is no distinction between a case and a unit of analysis and that they are simply identical: “cases are units of analysis” (Patton, 2002, p.447). “The case is, in effect, your unit of analysis” (Miles and Huberman, 1994, p.25).

Though Yin is an influential contributor in the case study research approach, Grunbaum (2007, p.85) argues that Yin is “rather imprecise about a conceptual account of the unit of analysis”, by pointing out that while in some situations, Yin argues for a distinction between the case and the unit of analysis, in some other situations he makes no such distinction:

“A major step in designing and conducting a single case is defining the unit of analysis (or the case itself)” (Yin 1994, p.44).

Yin (2003) draws on Platt’s (1992a,b) articles that consider the case and the unit of analysis to be identical, and says that “in each situation, an individual person is the case in the study, and the individual is the primary unit of analysis” (Yin 2003a, p.22). Thus, here, Yin seems to be indicating the case and the units of analysis are one and the same.

However, critically reflecting on Yin’s matrix of case study design (Yin 1994, p. 40), Grunbaum (2007, p.85) points out that Yin distinguishes between the case and the unit of analysis. Thereby, Grunbaum (2007, p.85) highlights that “the meaning of the unit of analysis changes depending on type of case study”. Through these discussions Grunbaum (2007, p.86) concludes that “consistent distinction between the case and the unit of analysis” is now being emphasized. In terms of identifying the appropriate unit of analysis, Patton (2002, p.229) observes that:

“The key issue in selecting and making decisions about appropriate unit(s) of analysis is to decide what it is you want to be able to say something about at the end of the study”. (Patton 2002, p.229)

There are three crucial guidelines that Yin (2003, pp. 23-26) offers in terms of identifying the unit of analysis:

1. “The way the primary research question is defined,
2. Specific time boundaries that define the beginning and end of “the case” and,
3. Available literature that guides the study”.

This can be diagrammatically represented as follows:

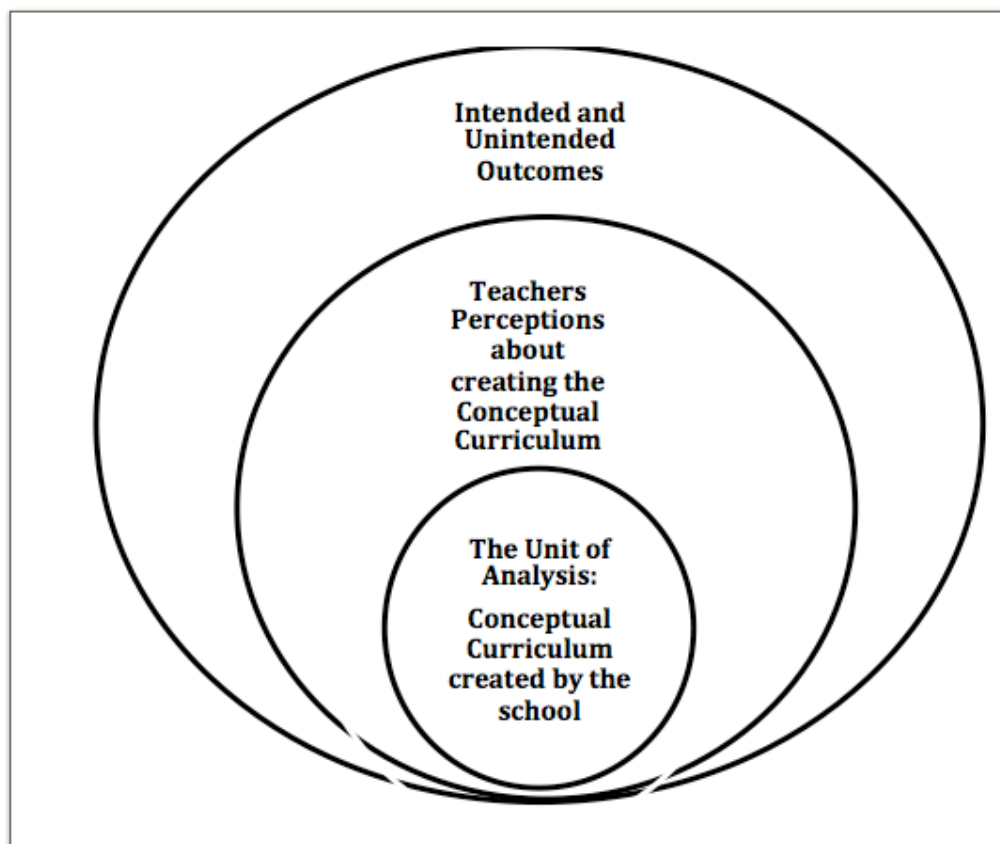


Figure 3: The Unit of Analysis.

The Conceptual Curriculum created by the school thus becomes the unit of analysis in this case study. The “unit of analysis” (Yin 2003, p. 22) is also informed and shaped by the relevant literature, as well as by Bernstein’s (1971) theoretical framework. Establishing the “time boundaries” of the study involved for analyzing the Conceptual Curriculum necessitated the analysis of curriculum documents from 2006, since the school had initiated the process of creating the Conceptual Curriculum in the year 2006. The time boundary for the analysis is 2006-2012.

### **5.3 The Conceptual Curriculum – Document Analysis**

The initial interview with the secondary school Principal conducted during the preliminary stage of the study revealed that the school had also adopted and modified many of the elements of the IB MYP (such as the IB MYP personal project and the IB MYP’s emphasis on community service) making it evident that the curriculum “recontextualization” (Bernstein, 1996, p. 47) has enabled the school to pick and choose what it wants:

*“The elements of the MYP such as providing teachers a broad research-based curricular framework that emphasizes teaching for conceptual understanding were certainly elements to be incorporated in creating a program that would bridge the PYP and the IB DP which are also conceptually-based..”*

(Preliminary interview with the Secondary Principal)

Curriculum documents revealed that the Conceptual Curriculum programme of the GAIS, in grades 7-10, covered a total of 10 subject areas: English, Science, Social Studies, Mathematics, Foreign Languages, Arabic, Islamic Studies, Arts, Computer Studies and Physical Education. Besides the taught curriculum, the middle school Conceptual Curriculum also offers curriculum enrichment opportunities such as the “Grade 8 Service Learning Project”, the “Experiential Learning trips” and the “Grade 10 Individual investigation”. A teacher-coordinator supervises each of these curriculum enrichment projects. The



Student Handbook was the main source of information with regard to these projects. In some instances, where necessary, the teacher-coordinators were also interviewed in order to understand the nature of these projects better (Appendix: 12).

The culmination of the 7-10 Conceptual Curriculum program is the end-of-year examinations for grade 10. The school has a seven-point grading system in place for grades 7-10, similar to the IB DP assessment scale. Students need to score a minimum of 5 points in subjects taught during grade 10 to qualify for taking the subject in the higher level (in the IB DP program). The school maintains that the performance of students at the end of grade 10 determines the options that students can choose in the IB DP program.

Analysis of curriculum documents revealed that the Conceptual Curriculum programme created and developed by the school (offered for grades 7-10) lays emphasis on teaching for conceptual understanding which draws on the concept-based curriculum philosophy emphasized by Erickson (2008). The following are the key elements that serve as the “guiding philosophies of developing, and administering the Conceptual Curriculum:

- Teaching needs to go beyond content and provide students ways to promote higher order thinking through conceptual understanding,
- Each subject area will identify a set of overarching concepts that will serve as the ‘big ideas’ that will help students to make connections across disciplines and subject areas and
- Each subject area will however maintain separate identity from the other thereby not deliberately promoting ‘inter-disciplinary’ as in the PYP.” GAIS Curriculum Development Guide (2006, p: 26).

The above philosophy of developing and delivering the Conceptual Curriculum programme, in the light of Bernstein’s theoretical framework, suggests that the Conceptual Curriculum is “strongly classified and strongly framed” (Bernstein, 1971, pp. 49-50) curriculum programme, thereby indicating that it is a “collection code” (Bernstein, 1975, p.75) type of curriculum. Though the Conceptual Curriculum programme seems to be promoting the philosophy of

teaching for conceptual understanding, it also seems to be retaining a disciplinary structure; thereby with no explicit requirement in fostering interdisciplinary connections between subjects. Curriculum Guides also explicitly indicate that the Conceptual Curriculum prepares students for the IB DP, not articulating anything in regard to how the same would enable students to transition from the IB PYP, except that the curriculum is concept-based.

#### **5.4 The Conceptual Curriculum: Preliminary Structured Interview Analysis**

Preliminary interview responses show that teachers retain disciplinary focus while aiming to teach for conceptual understanding, thereby indicating the “strong classification and strong framing” (Bernstein, 1971, pp.49-50) of the Conceptual Curriculum, as revealed by the curriculum document analysis. As noted by one teacher:

*“I would say that though the Conceptual Curriculum requires us to teach beyond the facts and foster teaching for conceptual understanding, this effort has remained much within each of the disciplines as there is never enough time to plan collaborative units in the middle school”.*

(Interview respondent # 1, Curriculum Leader, 6 years in the school)

Three out of four respondents expressed the notion that they prefer a flexible curriculum framework as opposed to a prescriptive one, but lack of consistency seemed to be a major cause of concern. Two respondents also questioned their proficiency in being able to write/develop curriculum:

*“Teachers simply go off on a tangent and teach what they find interesting and easy to cover...I had one teacher in my department who taught some topics simply because she had the resources for it and not the other...tell me, where is the consistency?”*

(Interview respondent #3, Teacher, 6 years in the school)

*“(I) definitely (prefer) a flexible framework...but again I sometimes miss being told by an expert that I am doing the right thing for my students and that I have taught them what is needed”*

(Interview response, teacher, 4 years in the school)

Some respondents felt that the task of developing the Conceptual Curriculum was far too demanding to be placed on teachers. As noted by one of the teachers who shared this sentiment:

*“It is like telling the teachers: here are the students from the PYP and we need to get them ready for the DP, so go and do everything needed between the PYP and the DP to get them ready for the DP...This is far too much a demand to be placed on the teachers...”*

(Interview Respondent # 2: Teacher, 4 years in the school).

In the early stages of the research, the structured interviews also helped to identify the nature of the questions that would need to feature in the teacher questionnaire that was to be distributed later on. For instance, one of the pertinent issues raised by the participants during the interview was the danger of teachers incorrectly interpreting broad curriculum frameworks such as Erickson's (2007) model which stresses the importance of teaching for conceptual understanding. The underpinning philosophy as proposed by Erickson (2007, p. 39) is that: “teachers usually do not give away generalizations at the beginning of a lesson...they teach inductively to develop students' thinking...”.

Erickson (2007) further argues that stating the concepts up-front (when the unit begins) robs the students of the experience of having to construct conceptual understanding through their learning experiences. This, however, demands specific skills and ability on the teachers' part to handle the discussions and keep the learning focused and engaged, thereby necessitating teachers to “think on their feet” (Erickson, 2007, p.39).

Two of the interview respondents argued that, though a valuable philosophy, this may not always translate into practice, and that some teachers resort to giving out the concepts in advance, or even write down the concepts on the board before beginning a unit so that student thinking “remains within the scope of the unit”.

*“It is one thing to talk about these things and a totally different thing to practice it in the classroom...there are some of us who discuss, debate and argue about this philosophy (teaching for conceptual understanding), while there are others who simply say, “yes, we totally get it”, but just go into the classroom and do their own thing...often they deliver the concepts for a unit like topics and simply “cover” the concepts as they would teach a specific topic just so that the teaching remains within the scope of what they have planned for the unit”*

(Interview Respondent # 4, Teacher, 5 years in the school)

Perhaps due to the incorrect interpretation of the philosophy of teaching for conceptual understanding, one respondent also expressed the notion that the Conceptual Curriculum was by itself very prescriptive in nature. This was a vital point that emerged in the early stages of data collection that indicated how curriculum recontextualization could pose the danger of incorrect interpretation of intended curriculum philosophies. Hence, it was considered important to include some questions in the web-based questionnaire that would seek to identify to what extent teachers correctly or incorrectly interpreted the curriculum philosophy proposed by Erickson (2007).

## **5.5 The Web-based Questionnaire - Coding and Analyzing responses**

Keeping in mind the challenges that qualitative data pose in terms of their “labor intensiveness, data overload and credibility, and quality of conclusions” (Miles and Huberman, 1994, p.2), it was essential to draft an articulate coding plan (see Appendix: 13) for coding the data before embarking on any data collection. Saldana (2007, p.3) defines a code as:

“A word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data”.

However, most researchers who advocate qualitative methods caution that one must not leave the coding procedures right until all the data has been collected (see Saldana, 2007; Miles and Huberman 1994). In this regard, Miles and Huberman (1994, p.58) recommend creating a provisional “start list” for coding prior to starting fieldwork:

“A list that comes from the conceptual framework, list of research questions, hypotheses, problems areas, and/or key variables that the researcher brings to the study”.

Hence, the purpose of each of the questions was clearly identified in the plan, along with the identification of the “start-list” of codes wherever applicable. Auerbach & Silverstein (2003, p.44) also strongly advocate that “a copy of the research concern, theoretical framework, central research question, goals of the study and other major issues” be kept ready so as to ensure that the coding decisions are focused on the main purpose of the study. Miles and Huberman (1994, p.55) point out that keeping the conceptual framework and research question in perspective is also the “best defense against data overload”.

It was also noted that “codes will change and develop” as the field work progresses and “some codes may not work and others may decay, while some may flourish” (Miles and Huberman 1994, p.61). Keeping this in mind right from the beginning was helpful towards gauging the extent to which the process would demand flexibility, besides being prepared for the demands it would place on time due to the laborious and tedious procedures of coding. In terms of approaching coding, Glaser and Strauss (1967, p.3) propose a more inductive or “grounded theory” approach, wherein the coding procedure begins only after the data has been collected. In this approach, Miles and Huberman (1994, p.58) point out that:

“Data gets well molded to the codes that represent them, and we get more of a “code-in-use” flavor than the generic-code-for many-uses generated by a pre-fabricated start list”.

Such an approach is more useful when “the ultimate objective is to match the observations to a theory or set of constructs” (Miles and Huberman, 1994, p. 58). Other research scholars such as Boulton and Hammersley (1996, p.290) also point out that: “allowing categories to emerge from the data and looking out for concepts used by respondents that can inform on the distinctive way in which they view the issues” is also important.

Moreover, as noted by Wilson (1996, p.10), open-ended questions when classified and coded after they are collected allow for a full range of responses and categories to emerge. Thus, a combination of the “inductive” (generating “code-in-use” as proposed by Glaser and Strauss (1967), and the “deductive” coding procedures (with the “start list” as proposed by Miles and Huberman (1994)) seemed to be a useful strategy to adopt and hence such a combined strategy was adopted in the analysis of the data in this study.

I also had to draw on my professional knowledge and personal experience (Erkut, 1994) to ensure that the “codes and categories in the analysis were valid and meaningful” (Burton et al, 2008, p.164). Lincoln and Guba (1985, p. 342) recommend that writing memos about coding categories can help uncover properties of that category and “develop rules for assigning subsequent data to the category”. This was found to be a very useful strategy, particularly also serving as a reflective tool (Yin, 2004) for me as the researcher to proceed with the data analysis.

Responses were read by me a number of times, to initially identify some emerging codes in relevance to what the questions were seeking to find out. However, since the study aimed at exploring both the intended and unintended outcomes, questions could not clearly be categorized as those meant for the ‘intended’ and those meant for ‘unintended’ outcomes: these rather emerged

from the nature of responses. Thus, following the “inductive coding” (Strauss, 1987) as described by Strauss and Corbin (1990) the responses collected for each of the questions in the questionnaire were read line-by-line and below the responses, emerging codes were generated (First cycle coding). This was initially done on a hard copy of the questionnaire responses. In the next phase (Second cycle coding), the labels were reviewed so as to assign a “category” based on the “patterns emerging” (Miles and Huberman, 1994, p.57).

Burton et al (2008, p.163) caution that it would be far too simplistic to assume that “the process of relating data to the various research questions/objectives is of a linear nature” and that often, the emerging categories from responses though directed to answer a particular part of the research question, may turn out to be relevant to a different part of question. This was important to note, as there were two research questions this study was addressing. It was hence considered necessary to keep a close watch when coding responses, so as to determine which of the research questions the particular response was relevant to and the iterative comparisons with the research objectives helped to achieve “succinct and coherent findings” (Burton et al 2008, p.167).

In terms of coding the responses generated from the questionnaire, the “*analytic trail*” outlined by Miles and Huberman (1994, p.87-88) (drawing on the sequence of steps followed by Chesler (1987) who used a combination of inductive coding and grounded approach to derive theory) was found very useful:

“Step 1. Underline the key terms in the text.

Step 2. Restate the key phrases.

Step 3. Reduce the phrases and create clusters. [this step has to be done several times]

Step 4. Reduction of clusters and attaching labels: pattern coding.

Step 5. Drawing generalizations from clusters.

Step 6. Writing memos to generate mini-theories to explain their meaning.

Step 7. Integrating the theory in an explanatory framework”. (Miles and Huberman, 1994, p.87-88).

As Saldana (2007, p.10) points out, getting coding right the first time is not easy and it will demand “meticulous attention to language and deep reflection on the emergent patterns and meanings”. Gray (2004, p.321) suggests a “cyclic coding” procedure be adopted, where codes and categories become more and more refined, thereby leading to “reduction of data”. From such rigorous and systematic coding “data are broken down, conceptualized and put together in new ways”, and thereby “one’s own and others’ assumptions are explored leading to new discoveries” (Strauss and Corbin, 1990, p.62).

Abbott (2004, p.215) compares this procedure to that of decorating a room: “we try it, step back, move a few things, step back again, try a serious reorganization, and so on”. Though the actual experience of coding was not as much a pleasure as decorating a room, the metaphor helped in keeping the right perspective and maintaining a positive spirit towards the arduous procedure. Also, it was quite exciting to see the story evolving from “fruitful explanations and words, meaningfully organized that would be more convincing to a fellow reader or another researcher than pages of summarized numbers” (Miles and Huberman, 1994, p.1). This kept me motivated and helped me stay convinced on the tedious procedure of coding.



It is crucial to mention that throughout the process of reading the data and generating the codes, constant reference was made to Bernstein's (1971) theoretical framework to ensure that the coding and analysis produced an "integrated picture that enhances conceptual richness of the theory" (Strauss and Corbin 1990, p.55). To tackle the dilemma of how much of textual data in terms of direct quotations was to be included in the presenting evidence, Wallace and Poulson (2003, p.55) usefully recommend that we include, "a range of quotations that highlight a particular phenomenon, or depending on the question, are representative of the most common responses".

It was essential to bear in mind that "regardless of how well you plan the analyses, the realities of sampling and data collection may force you to modify your plan" (Fink 2003, p.3). This enabled being open-minded and flexible in the arduous process of coding and analyzing data.

In the following sections I discuss each of the questions in the questionnaire in detail, in terms of the purpose of the question, how the questions helped answer the research questions and how the data was coded, analyzed and interpreted.

The web-based questionnaire began with some introductory questions:

1. Grades you teach:
2. Subjects/languages you teach:
3. Your role in the school: (Teacher/Curriculum Leader)

These questions were intended to set the stage for further questions that would follow to help focus on the study. The next question was aimed at gauging how many years of experience the teachers had in teaching and building the Conceptual Curriculum at the school. It is expected by the school that teachers who teach the Conceptual Curriculum also engage in ongoing development of the Conceptual Curriculum. Hence the question:

***“Number of years you have taught (and developed) the Conceptual Curriculum program in this school”.***

Analysis of the responses on these questions indicated that the respondents included teachers with experience ranging from one to seven years, with most of the teachers falling in the range of three to four years.

The next set of questions aimed at focusing on the “unit of analysis”, which is the “Conceptual Curriculum” program created by the school. It has been noted earlier that an important point that emerged in the piloting of the questionnaire, and during the initial interviews with Curriculum Leaders, was in terms of how teachers correctly or incorrectly interpret the broad concept-based curriculum philosophy, particularly when delivering the same in the classroom. In order to gauge how correctly or incorrectly teachers in the study interpreted Erickson’s (2007) model of concept-based curriculum philosophy, the following question was posed:

***“When you deliver the Conceptual Curriculum program, do you state upfront the concepts you will be addressing when teaching a particular unit?”***

Analysis of the responses indicated that except for six teachers (out of 47 teachers who responded to this question), all the rest were stating the concepts up-front, either for “all”, “most”, or “some of the units”. This clearly indicates that teachers move away from the notion of deriving the conceptual understanding through a more “inductive process” as proposed by Erickson (2007, p.39).

The next question was a follow-up question on the previous point:

***“When you deliver the Conceptual Curriculum program do new concepts that you have not planned for emerge as you are teaching a unit? And if so, how do you handle them?”***

The purpose of this question was to explore further, how correctly or incorrectly teachers interpreted the Conceptual Curriculum framework. For the first part of

this question, 22 of the respondents mentioned that new concepts emerge in their teaching either “all of the time” or “most of the times”. 22 respondents said that this occurs only “sometimes”, while three teachers said that new concepts “never emerge” in their teaching.

Since the second part of this question was an open-ended question, it demanded extensive coding of the response in order to be analyzed (see Appendix: 14). The data was coded in two cycles. The first-cycle coding highlighted the phrases that teachers used to describe their actions when new concepts emerged during the lesson. In the second-cycle coding, a list of the actions as highlighted in the first-cycle coding was created and the emerging categories were tabulated in Table 5:

<b>Emerging categories from coding</b>	<b>Number of responses in each category</b>
Will incorporate the new concepts in teaching	23
Negative stand- such as lack of time; assessment constraints	5
Use the opportunity to reflect and plan further	2
Check for “misunderstanding” of concepts	2
Make connections with other related knowledge and concepts	3

Table 5: Tabulation of Second Cycle Coding: WBQ Question #: 6

Analysis of the responses after first-cycle coding revealed that a total of 23 respondents mentioned that they would “incorporate” the new concepts that emerged into the lesson. A closer look at how teachers incorporated the same through the second-cycle coding however, revealed superficial engagement versus deep reflection, as teachers used phrases like “run with it”; “touch on it briefly”; “talk it over” etc., to indicate how they deal with new concepts that emerge while teaching. All 5 teachers said “no time to digress”.

One teacher mentioned that “students had to be given advance warning” and such newly emerging concepts were also to be reflected in the assessments, indicating that “conceptual understanding” was something to be “covered”

versus being fostered through an inductive process as proposed by Erickson (2007), thus indicating an incorrect interpretation of the philosophy of teaching for conceptual understanding. Two teachers mentioned that they use the opportunity to reflect and plan for the next unit. Only two teachers mentioned that they first check for the possibility of students “misunderstanding” the concept. This was a pertinent point to note, as here teachers seemed to “accept” the new emerging conceptual understanding from students and simply “incorporate it” versus checking whether the conceptual understanding emerging from students was correct or incorrect. A total of three teachers mentioned that they use the opportunity to help students in “making connections”, which is the fundamental idea as proposed by Erickson (2007) in teaching for conceptual understanding: enabling students to make patterns and connections from existing knowledge and new knowledge that emerges from learning. It is worth noting that only three teachers expressed this sentiment.

The next question was intended to gauge to what extent teachers believed that they exercise the freedom of being able to choose the content for the Conceptual Curriculum. Hence the question:

***“When you deliver the Conceptual Curriculum program, how much influence do you have in the choice of what is taught to your students in the classroom?”***

For this question, five teachers mentioned: “Not much influence” while 23 teachers indicated that they had “very much influence” and 19 teachers indicated that they had “sufficient influence” in the choice of what is being taught in their classrooms.

Since the Conceptual Curriculum is bridging the IB PYP and the IB DP program, I considered it essential to find out to what extent each of the programs influenced teacher choices when creating and planning the course content for the Conceptual Curriculum. Hence the following questions were asked:

***“Do you keep the IB PYP program in mind when choosing the course content for the conceptual curriculum of grades 7-10?”  
and;***

***“Do you keep the IB DP program in mind when choosing the course content for the conceptual curriculum of grades 7-10?”***

For the question: “Do you keep the IB PYP in mind when planning for the middle school Conceptual Curriculum?” Teacher responses are shown below:

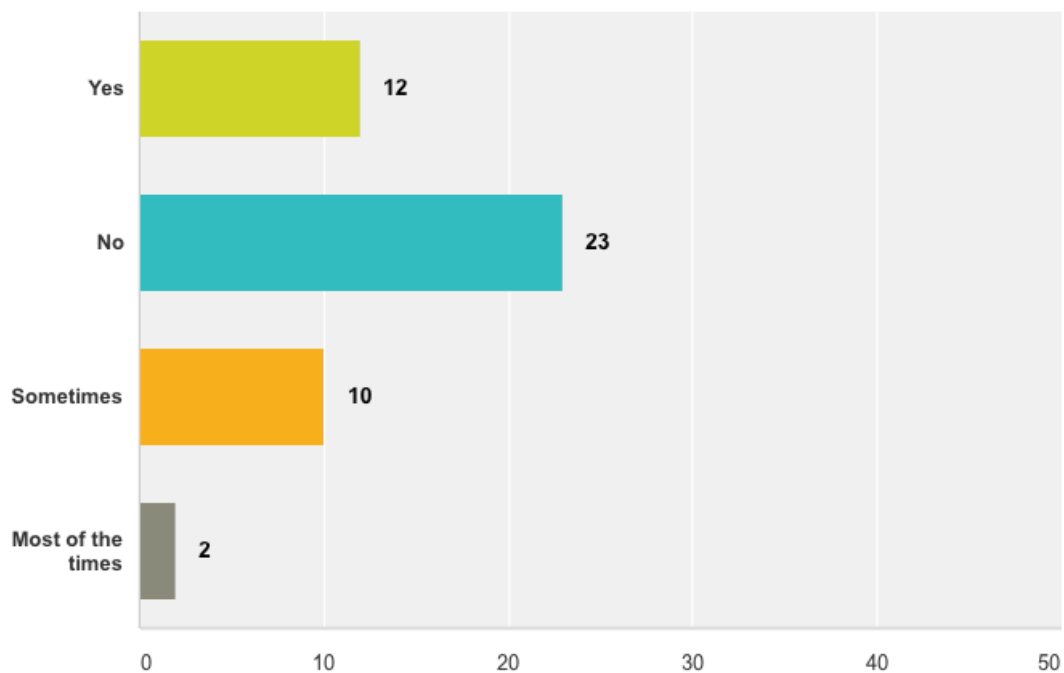


Figure 4: Answers to the question : “Do you keep IB PYP in mind...?”

For the question: “Do you keep the IB DP in mind when planning for the middle school Conceptual Curriculum?” Teacher responses are as below:

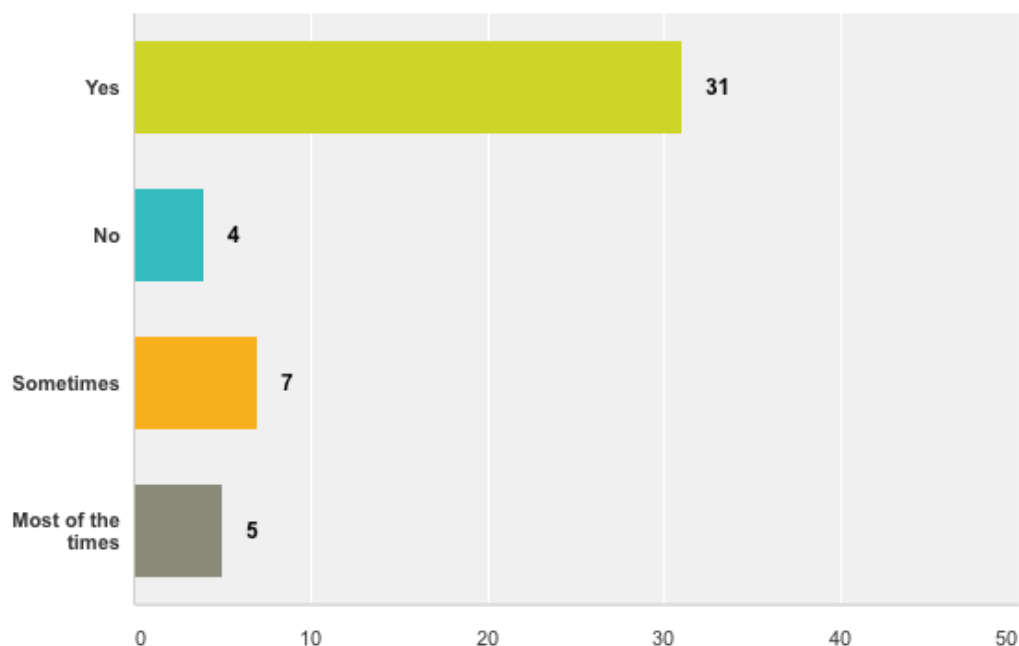


Figure 5: Answers to the question : “Do you keep IB DP in mind...?”

Comparison of the above graphs indicates that, while 31 teachers create the Conceptual Curriculum (including those who teach only grades 7 and 8) keeping the IB DP program in mind, only 12 teachers agreed that they keep the IB PYP in mind when planning for the Conceptual Curriculum. This was an interesting point to note as to why teachers were more inclined to consider the IB DP and not the IB PYP even when planning for the Conceptual Curriculum for grades 7 and 8.

The next question sought to provide teachers with the opportunity to explain the model of the Conceptual Curriculum. Thus, here, the “unit of analysis” was brought under focus, in order to provide teachers with an opportunity to describe the Conceptual Curriculum, as they perceive it.

***“What does the “conceptual curriculum” mean/look like in your classroom?”***

Originally, I had worded the question as “What does the “conceptual curriculum” mean to you/can you describe it?”. During the pilot, one of the

respondents had pointed out that this question needed to be related to classroom practice, since how one may describe their understanding of the Conceptual Curriculum may not necessarily be what it looks like in their practice. Hence, though the purpose of the study was not to evaluate classroom practice, the wording of the question in the actual web-based questionnaire was changed, in order to provide teachers with the context in which they would need to describe the Conceptual Curriculum (the classroom).

A total of 37 teachers responded to this question. Why ten teachers skipped answering this question is unknown. Since this was an open-ended question that provided teachers with the opportunity to explain the understanding of the Conceptual Curriculum in their own words, extensive coding was done in order to analyze responses (see Appendix:16). First-cycle coding of responses consisted of highlighting the words that teachers used to describe the Conceptual Curriculum in terms of what it looked like in the classroom: phrases that indicated a positive tone were to be highlighted in yellow and those that indicated a negative tone were highlighted in red. Second-cycle coding aimed at tabulating phrases that expressed a positive experience with those that expressed a negative or limiting experience. Hence, key phrases highlighted in the first cycle coding were placed in a tabular form to distinguish responses indicative of a positive tone versus those that indicated a negative/limiting tone.

The above analysis revealed that out of a total of 37 teachers who answered this question, 30 teachers used terms and phrases that denoted that the Conceptual Curriculum fosters a positive learning experience for students through terms such as *“promotes higher order thinking skills”*; *“helps develop critical thinking”*; *“holistic thinking to make inter-disciplinary connections”* and so on (full list available in Appendix: 16). Whether or not ideologies mentioned or expressed by teachers is realized in actual practice cannot be ascertained unless class observations are done, but it gives an understanding of what teachers believe the Conceptual Curriculum looks like in their classrooms. The remaining seven teachers took a negative/limiting stand about the Conceptual

Curriculum. Some teachers, here, pointed out the contrast between how it “looks good on paper” (as in curriculum documents), versus how it translates in actual practice. For instance, one teacher mentioned:

*“That is something as language teachers we struggle with...the conceptual curriculum as it is “implemented” in the languages is just on paper and not necessarily in practice...”*

(Questionnaire response, Teacher, 3 years in the school)

Some respondents expressed the notion that the Conceptual Curriculum “limits the learning experience to a few concepts”:

*“Grade 9-Change; Grade 10 Systems and Relationships”.*

(Questionnaire response, Teacher, 2 years in the school)

The teacher here is “listing” the curriculum of a whole year in one or two “concepts”. Whether “concepts” (that are transferable and hence a higher level of abstraction) here are merely replacing “topics” or “titles for content” (that are non-transferable and hence not abstract) so as to keep the scope of the lesson “within the parameters of a few identified concepts” becomes evident. Findings revealed that teachers also question the purpose of defining their teaching through a few concepts. As mentioned by one teacher:

*“The very nature of mathematics is conceptual and it does not fit neatly into a small (or even large) collection of ‘concepts’ ...this should not be determined by trying to fit mathematics into a limited set of ‘conceptual foci’ and I find it really difficult to organize mathematical concepts around a logical unit or under terms like Change, Shape etc”*

(Questionnaire response, Teacher, 4 years in the school)

Though this teacher seems to see the teaching of Mathematics as a conceptual process and maintains that teaching Mathematics should aim to foster students to make connections at the conceptual level, the teacher also



feels that doing so by deliberately “trying to fit Mathematics into a limited set of conceptual foci” seems to defeat the very idea of teaching for conceptual understanding. Such an approach carries the danger of simply replacing “topics” with “concepts”, and of teaching for conceptual understanding transpiring into merely a “checking the box exercise”. Such a “superficial engagement” in the exercise of “teaching for conceptual understanding” was also reflected in the sentiment of other teachers:

*“To be honest not much different as it has been very superficial in regards to how the conceptual curriculum can be integrated with the IB program”.*

*“It does not make sense to have conceptual curriculum for certain subjects. It's like wanting to make something fit that will not fit, and doing so just kills it's actually beauty. Conceptual curriculum is not a good idea for every subject.*

(Questionnaire response, Teacher, 4 years in the school)

*“I have never taught somewhere that I have felt stifled to teach math in a limited fashion (excepting inescapability of external exam groups) - as our curriculum is prescribed (by ourselves)*

(Questionnaire response, Teacher, 6 years in the school)

The next question explored the factors that teachers took into consideration when choosing the curriculum content for the Conceptual Curriculum. :

***“The model of curriculum the school follows for grades 7-10 enables teachers to make the choice of which concepts and topics to include in teaching. What factors do you consider to decide which concepts and topics to adopt/discard for a particular grade level?”***

Being an open-ended question, responses for this question were again cyclically coded so as to identify the key themes emerging (see Appendix: 15). First cycle coding involved highlighting phrases that indicated the “factors” teachers considered in deciding which concepts and topics to include or discard for a particular grade level. Different colors were used as new themes or factors emerged so as to be able to identify the most common factor and the least common factor that teachers considered when making the decision. Second-cycle coding involved tallying each of the factors indicated in the first-cycle coding, so as to arrive at final numbers (quantifying qualitative responses).

Analysis of the responses indicated that out of the 47 teachers who responded to the question, a total of 20 teachers mentioned “what is required to prepare students for the IB DP” as a major factor that they take into consideration when choosing the concepts and topics to be included in the grades 7-10 Conceptual Curriculum. Only eight teachers mentioned “Age appropriateness” as an important factor they would consider and another eight teachers mentioned “Progression and Vertical alignment” as an important factor they would consider. A total of six teachers indicated that the “decision was made prior to arrival” and that they simply continued with the content that was already chosen. Only one teacher mentioned that the “curriculum content” was chosen according to “pre-set Science Standards”; and one teacher mentioned, “it evolves from students”. Responses from the remaining three teachers seem to indicate that they had misinterpreted the question, as the response provided was not relevant to the question.

The next question that sought to summarize teacher experiences in creating the Conceptual Curriculum was:

***“What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?”***

The purpose of this question was to provide teachers with the opportunity to voice their opinions and thoughts on the experience of creating and building the middle school Conceptual Curriculum programme. Though much data had already been elicited on the experiences of teachers in building the Conceptual Curriculum through many of the previously posed questions, this question aimed at summarizing their experiences on creating the Conceptual Curriculum. The option of providing teachers with a “drop-down-list” to choose from so as to express their experience was considered, but not resorted to so as to refrain from giving teachers pre-conceived ideas on interpreting and answering the question. This made the question highly open-ended in that it required respondents to “explain their standpoint” (Oppenheim 1992, p. 65). Since this was a highly open-ended question and at the same time the main question that directly sought to answer the first research question, extensive coding procedures were followed (see Appendix: 17). The coding procedures have been explained in detail below:

Initially a “start-code list” (Miles and Huberman, 1994, p.58) that was prepared before distributing the questionnaire had identified two codes: “POSITIVE” [++] to be assigned to responses that indicated a positive experience and “NEGATIVE” [--] to be assigned to responses that indicated a negative experience. However, when the actual data was collected, a simple dichotomy of codes as “positive” and “negative” seemed far too simplistic. Nevertheless, it seemed a good starting point to begin “first-cycle coding”. It was also evident from some responses that the respondents had incorrectly interpreted the question, probably something I should have crosschecked in the wordings of the questionnaire (though the piloting of the questionnaire did not indicate such misinterpretations).

To tackle the above situations, the following steps were followed in order to code responses in the first-cycle coding (Miles and Huberman, 1994, p.58):

1. Read each response carefully,
2. Highlight any terms that are indicative of the experience whether positive or negative,
3. Highlight in a different color any responses wherein the respondent seems to have interpreted the question incorrectly so as not to include this in the analysis,
4. Once the highlighting is done, then read the responses again so as to assign the following codes:

Response Indications	Codes
For responses that indicate a positive tone	++
For responses that indicate a negative tone	--
For responses that indicate incorrect interpretation	IN

Table 6: First-cycle codes generated: WBQ Question #: 12

First cycle coding revealed that correctly interpreted responses did not fit into neat ‘categories’ of “positive” /“negative”. It was evident that in some instances, when teachers indicated a negative experience, teachers also expressed concerns over how **challenging** the experience was in being curriculum developers:

*“The development of the curriculum has been a journey of confusion and frustration, if I'm honest. I don't think that I have had enough training to develop a curriculum and having only a couple of workshops about the conceptual curriculum does not replace a fully trained and qualified group of professionals who know exactly what they are doing creating and developing a functioning, reasonable and logical curriculum” .*

(Questionnaire response, Teacher and Curriculum Leader, 6 years in the school)

This required deeper analysis, so as to wean out emerging themes that led to teachers expressing negative sentiments/experiences. Some respondents had also taken a neutral view, through statements/opinions that neither revealed

positive, negative nor challenging experiences. Thus, it was essential to identify the “codes-in-flavor” (Glaser and Strauss, 1967, p.3) emerging from the responses besides just identifying responses that indicated clearly a positive experience or negative experience. Hence the following codes were identified for the second-cycle coding:

<b>Response Indications</b>	<b>Codes generated for Second-cycle coding</b>
Responses that indicate a clearly <b>positive</b> experience	CP
Responses that indicate a clearly <b>negative</b> experience	CN
For responses that indicate that teachers are <b>challenged</b> by the experience regardless of it being positive or negative	CH
For responses that indicate a <b>neutral</b> experience through a statement	NU
Responses that <b>do not have a relevant code</b>	NC
Any other responses that <b>do not fall in the above categories</b>	OTH

Table 7: Second-cycle codes generated: WBQ Question #: 12

The second cycle coding revealed that some responses were statements that are neither positive, negative or neutral, but represent teachers’ personal statements in terms of how they interpreted the question (for example: respondents mentioned “little experience”/ “PD last year” etc. as their “experience”). This necessitated the need to have a separate code for these responses in the next cycle coding.

Also, some responses indicated the frustration of teachers in curriculum development, while others indicate that teachers were questioning their proficiency in being curriculum developers. This necessitated the need for a separate category to be included.:

*“Not everyone is on board with the Conceptual Curriculum. Other school districts hire professionals to develop curriculum for them. I do not think that most teachers at this school have the experience to develop a curriculum on their own”*

(Questionnaire response, Teacher and Curriculum Leader, 4 years in the school).

Thus, in the “third-cycle coding” (Miles and Huberman, 1994, p.57) the following codes were assigned:

Response Indications	Third-cycle coding
Responses that indicate a <b>clearly positive</b> experience	CP
Responses that indicate a <b>clearly negative</b> experience	CN
Responses that indicate that teachers are <b>challenged</b> by the experience	CH
Responses that indicate <b>frustration</b>	FR
Responses that indicate teachers <b>questioning their proficiency</b> to be curriculum developers	QS
Responses that indicate respondent is expressing a <b>neutral</b> experience	NU
Responses that are a <b>statement</b> (which does not explicitly state an ‘experience’)	PST
Any other responses that <b>do not fall in the above categories</b>	OTH

Table 8: Third-cycle codes generated: WBQ Question #: 12

It was once again not always possible to clearly ‘categorize’ responses neatly into the above identified codes, as sometimes responses required multiple codes to be assigned for analysis. The third-cycle coding was done to assign combined code categories when applicable to the responses. From the third-

cycle coding, through “meticulous attention to language and deep reflection on the emergent patterns and meanings” (Saldana, 2007, p.10), five key themes or categories emerged, which enabled responses to be grouped into categories which are indicated in Table 9 :

No	Categories	Responses falling in each category
1	Responses indicating a neutral experience	1
2	Responses indicating a positive experience	8
3	Responses indicating negative/challenging/questioning/frustrating experiences (either individually or in combination).	21
4	Responses indicating invalid interpretation	5
5	Responses that were personal statements that did not express an “experience” that could be analyzed	17

Table 9: Categories emerging from third-cycle coding: WBQ Question #: 12

Thus, though the final categories that emerged were aligned with the codes developed in the start-list, the three cycles of coding enabled clarification of the coded data with clear and articulate patterns emerging to justify both the codes and categories.

The most recurring theme from the analysis of the responses was how teachers found the experience of creating the Conceptual Curriculum challenging, frustrating and how most often they questioned their proficiency to be curriculum developers.

*“It has been a massive frustration and a waste of time.”*

(Questionnaire response, Teacher and Curriculum Leader, 6 years in the school)

The analysis of the responses to this question showed a sharp contrast in the ways teachers perceive the curriculum versus the actual experience of developing the curriculum. Thus, going back to the question *“What does the*

*Conceptual Curriculum look/feel like in your classroom?”*, it was noted that the majority of the teachers (30) used positive expressions and terms to describe their perceptions such as *“promotes higher order thinking skills”*; *“helps develop critical thinking”*; *“holistic thinking to make inter-disciplinary connections”* and so on (see Appendix:15). However, when asked about their *“experiences in creating and delivering the conceptual curriculum”*, 21 teachers expressed a negative/frustrating experience that raised issues on the challenges faced and questioned their expertise in being curriculum developers and the resulting impact on student learning.

The questions: ***“What do you think are the strengths of the Conceptual Curriculum created by the school?”*** and ***“What do you think are the weaknesses of the Conceptual Curriculum created by the school?”*** helped probe further how teachers perceived the Conceptual Curriculum and how teachers evaluated the Conceptual Curriculum (the “unit of analysis” in this case study) in terms of its strengths and weaknesses (see Appendix: 19). It was considered essential to analyze the responses to these questions together, by juxtaposing the responses with the question that sought to find out: ***“If you were given a choice to choose between teaching a prescriptive curriculum (where you are given the scope and sequence, the course material and the books/resources) and a curriculum framework such as the one in the current school which is more flexible what would you prefer? Why?”*** (see Appendix: 19).

First cycle-coding highlighted phrases that indicated strengths/weaknesses of the Conceptual Curriculum as described by the teachers and the related choice/preference of teachers as to whether they preferred a prescriptive curriculum having a flexible framework. Second-cycle coding aimed at identifying emerging themes from the highlighted phrases in the first-cycle coding and these themes were noted down below each response. In the third-cycle coding a separate list was created from the emerging themes/categories and tallied to identify the major themes emerging.



In terms of describing the strengths of the Conceptual Curriculum, teachers again used phrases such as “promotes higher order thinking skills” and “critical thinking skills”; thereby indicating that the Conceptual Curriculum encourages students to think and “makes the quality of learning greater”. For instance, one respondent noted:

*“I think that it encourages students to continually be thinking about something while they are working on diverse aspects of learning. Students should always be questioning things and that is very critical especially when it comes to their learning”.*

(Questionnaire response, Teacher, 1 year in the school)

Another teacher pointed out that the Conceptual Curriculum enabled her to develop a programme that was tailor-made to suit the needs of the students:

*“The one created in the school is aided by our varied experiences with best practices in other schools, curriculums, and **is designed for our particular students and their path...** We are able to adjust as needed to cover a gap from the previous quarter or year”*

(Questionnaire response, Teacher, 1 year in the school, emphasis my own)

Another teacher echoed the above sentiment by stating:

*“We recognize the larger ideas (Enduring Questions) and relevant "big picture" skills - holistic thinking and writing, inter-disciplinary connections, various methods and styles of effective communication, and cultivating the INDIVIDUAL voice of each student - these are the real endgames of the year. The links to IB and the CC break these abstract goals into tangible steps.”*

(Questionnaire response, Teacher, 1 year in the school, emphasis in original).

Teachers also expressed the notion that the school-created Conceptual Curriculum enabled them to cater to the needs of the students:

*“It is **flexible and adaptable enough** to be used with any group and level. It allows for differentiation within a level.”*

(Questionnaire response, Teacher, 3 years in the school, emphasis my own).

Teachers also mentioned “flexibility” and “freedom” of teachers in choosing the content as strengths of the Conceptual Curriculum. This, however, is a key point to note because, when asked about the weaknesses of the Conceptual Curriculum, “lack of consistency/lack of clarity” was a recurrent theme that evolved, as 12 out of 41 teachers who responded highlighted this as a concern. The “proficiency of teachers in being curriculum developers” and the resultant “impact this would have on student learning” was again the next recurrent theme that was raised:

*“When I first came to this school I would have definitely wanted a prescriptive curriculum. I appreciate the freedom and flexibility of our current curriculum but I sometimes **wonder if there are not many gaps in the courses**. How do we find out where the gaps are and how do we know that we are, in fact, meeting the needs of the students? I wonder how good our curriculum is. I have “pride” in it because we have all created it, but I also doubt how good it is because I know just how unqualified I am to write an official curriculum document.”*

(Questionnaire response, Teacher and Curriculum Leader, 6 years in the school; emphasis my own)

Thus, here, the impact of the “flexibility and freedom” enjoyed by the teachers in working with the flexible Conceptual Curriculum framework and the resultant impact on student learning outcomes is being questioned.

As another teacher mentioned:

*“As teachers we are **sometimes unable to make the right choice** of whether this concept or topic needs to be included/excluded so some sort of framework that articulates some non-negotiable would be very helpful, as in the PYP. The conceptual curriculum is quite broad in that everything is left to the teacher's choice. I may think I am doing a great job, someone else may come along after a year and think 'this teacher had no clue what she was doing' and change everything. **How this will impact student learning is what we need to see**”.*

(Questionnaire response, Teacher, 4 years in the school, emphasis my own).

Another teacher reinforced the above sentiment by saying that:

*“Teachers are creating the curriculum, and that should be done by someone who has 25 years plus experience in the field.”*

(Questionnaire response, Teacher, 5 years in the school)

Other teachers also pointed out the lack of proficiency and expertise of teachers in curriculum development by saying that:

*“No one seems to really know what it is. We have adopted our own version of a program... we should have just used in total, as it is complete. We are not adept at informing the staff, logically and timely, as to what is happening and what should be happening”.*

(Questionnaire response, Teacher and Curriculum Leader, 3 years in the school)

*“Why are we creating all of this work when a very well researched and established program - that directly leads into our grades 11 and 12 - such as MYP already exists?”*

(Questionnaire response, Teacher, 2 years in the school)

The practical difficulty of taking the time and effort to understand the model of curriculum philosophy as proposed by Erickson (2007) in the beginning stages and the need for sufficient training and support was also pointed out by the former Director who had initiated the Conceptual Curriculum program:

*“The most critical aspect of the implementation of the conceptually-based curriculum was the training of teachers to understand and appreciate the subtlety and nuances of this model. In this domain, more needed to be done and more time was needed than was given for this critical phase. As a result the buy-in from teachers was less than hoped for and in some instances there was confusion that was detrimental to progress. Attempts were made to band-aid these problems but this did not yield anticipated results”*

(e-mail response, April 26<sup>th</sup>, 2013).

This, perhaps, was the reason why some teachers were sharper in criticizing the Conceptual Curriculum by saying:

*“Based on my subject, I have not experienced any strengths... Frustrating... Give us a solid example of how a conceptual curriculum in languages is taught in other schools (not just on paper, but in actual practice) and you will make believers out of us. After four years of working with the conceptual curriculum, I am still unsure of how to teach a grade 7 student who is learning numbers, colors, school subjects, and conjugating verbs how that is all tied in to their “identity”, or “relationships” or “connections”. Again, on paper, it all looks and sounds great. But in reality, I have yet to see a solid, convincing example of how this is done in the foreign languages”.*

(Questionnaire response, Teacher, 3 years in the school)

One teacher also mentioned that the fact that the Conceptual Curriculum restricts the learning of students to what is needed for the IB as opposed to learning a wider range of topics is a weakness of the Conceptual Curriculum:

*“Students are learning concepts that are preparing them for an IB course instead of studying a broader range of topics.”*

(Questionnaire response, Teacher, 1 year in the school)

This reinforced the earlier point that was recurrent on how the IB DP program predominantly influences the choices made by teachers when choosing the course content for the Conceptual Curriculum and how teachers align more towards the “strongly classified” IB DP curriculum versus the “weakly classified” IB PYP curriculum.

The other recurring themes in terms of the weaknesses of the Conceptual Curriculum were: the “need for more training”, “need for more accountability” and the need for “more collaborative efforts” between departments as well as between elementary and secondary teachers teaching the IB PYP and the Conceptual Curriculum programmes.

## **CHAPTER 6 – CONCLUSION**

International schools that adopt broad curricular frameworks such as the IB programmes, often enjoy considerable freedom to “try out new educational ideas...making them ideal educational laboratories” (Hill, 2003, p.48). Utilizing Bernstein’s theoretical framework, this singular case study set out to investigate teacher perceptions about the development of a concept-based curriculum programme, in one international school in the UAE and the intended and unintended outcomes of such curriculum recontextualization.

It has been noted earlier that Bernstein (1971) developed his theories to argue about the relationship between education and social class, and did not develop his theories in relation to the IB programs or concept-based curriculum. However, the theory of “classification and framing” (Bernstein 1971, p.49) and curriculum “recontextualization” (Bernstein, 1996, p. 47), has particularly been useful in unpacking and understanding the curriculum design of the IB programs as well as the Conceptual Curriculum developed by the school in this study.

The preliminary stage of the study explored the reasons why the school did not adopt the IB MYP, in spite of having adopted the IB PYP and the IB DP. This prelude to the inquiry helped in the process of understanding the recontextualization principles (Bernstein 1971) involved in the development of the Conceptual Curriculum - the reasons why the school decided to create the Conceptual Curriculum (the intended outcomes) and what essentially happened when the same was recontextualized (unintended outcomes).

Thus Bernstein’s theories have provided an interesting perspective to analyze what in effect comes into play through curriculum recontextualization when curricular discourses are moved from the ORF to the PRF(Cause, 2010, p.4). As a researcher, I also believe that Bernstein’s theories have offered the required analytical framework and the rigor to explore complex and intricate curriculum issues that may not necessarily be obvious to the casual observer.

## **6.1 Teacher Perceptions of Developing the Conceptual Curriculum Program**

The following sub-sections explain the key themes emerging from the study in terms of how teachers perceive the experience curriculum recontextualization, through the process of developing the Conceptual Curriculum program in the school.

### **6.1.1 Teachers Questioning their Proficiency in being Curriculum Developers**

Findings revealed that the creation of the Conceptual Curriculum in the school to bridge the IB PYP and the IB DP has provided the school with sufficient opportunities to develop a program that is specifically tailor-made to suit the requirements of the school. Teachers agreed that they enjoy the freedom and flexibility in developing the Conceptual Curriculum program. Some teachers also perceived the experience of building the curriculum as a positive experience, by noting that it *“allows teachers to be pedagogical leaders”*; and the experience of being *“collegiate - it challenges teachers to grow...”*, for instance.

In terms of describing the strengths of the Conceptual Curriculum, teachers again used phrases like “promotes higher order thinking skills”; “critical thinking skills”; thereby indicating that the Conceptual Curriculum fosters student thinking and “makes the quality of learning greater”. For instance, one respondent noted that:

*“I think that it (the Conceptual Curriculum) encourages students to continually be thinking about something while they are working on diverse aspects of learning. Students should always be questioning things and that is very critical especially when it comes to their learning”.*

(Questionnaire response, Teacher, 1 year in the school).

Findings also revealed that, though teachers expressed the experience of creating and delivering the Conceptual Curriculum as sometimes being challenging and frustrating, a vast majority of the teachers prefer a flexible curriculum framework versus a prescriptive curriculum.

Findings also indicated that while teachers definitely enjoy the freedom of working with flexible curriculum frameworks made available through curriculum recontextualization, teachers also seem to question their proficiency in being curriculum developers. Some teachers seemed to express the notion that the Conceptual Curriculum is merely *“a mish-mash of well meaning curriculums”* and a *“hodge-podge of different ideas...that looked good on paper but really didn’t do much for the students”*, thereby highlighting some significant issues that school-based curriculum development initiatives and curriculum recontextualization can raise. More importantly, teachers also question the impact this would have on consistent student learning outcomes as indicated by the responses below:

*“I guess I would say I do like the freedom to choose as it allows you to really custom tailor lessons to each individual student. It’s a lot more work, and often it feels as if things go missing in the overall picture. The one we have now is definitely more flexible, but sometimes I miss the **comfort of using someone who has advanced degrees in curriculum design’s work, as I’m sure they’re better at it than I am.**”* (Questionnaire response, teacher, 4 years in the school; emphasis my own)

*“On a whole school planning level I feel most staff were unsure of what the Conceptual Curriculum was... I am far more confident now than I was a couple of years back... the delivery of content was never an issue, **but always second guessing if I was building the curriculum correctly was a hovering thought.**”*



(Questionnaire response, Teacher, 5 years in the school; emphasis added)

Thus, while teachers do seem to value the underpinning philosophy of teaching for conceptual understanding, as well as the freedom in curriculum planning through curriculum recontextualization (Bernstein 1971), teachers also seem to require adequate benchmarks and assurances to ensure that they are doing it right. This sentiment was expressed by one respondent, as follows:

*“I enjoy the freedom, but this is coupled with the responsibility of ensuring it is being delivered at the appropriate level/complexity. In a national system this would all be decided, which is restricting, but the responsibility is also removed. I find that many teachers find this quite difficult to deal with.”*

(Questionnaire response, Teacher and Curriculum Leader, 4 years in the school)

Findings also revealed the lack of sufficient training and the need for more resources to develop the Conceptual Curriculum. It is to be noted that these outcomes that were evident in the findings in this study are common in other studies involving most school-based curriculum development initiatives, and may seem to be issues at the “superficial level”. However, Marsh and Willis (2007) warn that such issues (though they appear superficial) have to be given due consideration as most often, they turn out to be the very cause for schools to abandon school-based curriculum initiatives:

“Some such projects are abandoned; others continue over time, with participants becoming increasingly frustrated by the lack of hoped-for changes or increasingly satisfied with the changes they believe are occurring but, in fact, are not.” (Marsh and Willis 2007, pp. 147-148).

### 6.1.2 Incorrect Interpretations when Recontextualizing Curriculum

The underpinning philosophy as proposed by Erickson (2007) is that: “teachers usually do not give away generalizations at the beginning of a lesson...they teach *inductively* to develop students’ abstract thinking” (Erickson 2007, p.39, emphasis my own). Erickson (2007) further argues that stating the concepts up-front when the unit begins “robs the students of the experience” of having to construct conceptual understanding through their learning experiences. This, however, demands specific skills and ability on the teachers’ part to handle the discussions and keep the learning focused and engaged, thereby necessitating teachers to “think on their feet” (Erickson 2007, p.39).

Analysis of the responses, however, indicated that with a few exceptions, teachers often state the concepts that their units are going to address at the beginning of the lesson, thereby replacing “concepts” with “topics”. This is a very important point to note, as it also brings under question the terms that teachers use to describe the Conceptual Curriculum in the classroom, by saying that it: “promotes critical thinking”; “enable students to make connections” and so on. Though teachers seemed to use appropriate terminology to describe their understanding of the Conceptual Curriculum, whether the philosophy of the Conceptual Curriculum as understood and perceived by teachers gets translated into effective everyday practice comes under question. This was highlighted in a comment made by a teacher, when questioned about the Conceptual Curriculum:

*“Learning about the concept of it and attempting to implement it in the classroom are two drastically different things”.*

(Questionnaire response, Teacher, 1 year in the school)

The philosophy of teaching for conceptual understanding can be explained by emphasizing that teaching and learning needs to go beyond the regurgitation of factual content and that students need to be able to make patterns and connections using big ideas that transfer across disciplines (Erickson, 2007, p.

22). Though the philosophy can be articulated in this way, how each teacher interprets the philosophy and more importantly puts the philosophy into practice is highly ambiguous and subjective. In practice, this makes arriving at a universally used definition or description of the Conceptual Curriculum programme, highly challenging.

The concept-based philosophy as proposed by Erickson's (2008) model of Conceptual Curriculum requires curriculum planning to move away from a prescriptive curriculum framework to a more flexible framework that inspires deeper thinking for conceptual understanding. However, teacher perceptions reveal the clear opposite, as teachers seem to view this as a "compliance exercise" and replace "topics" with "concepts". As mentioned by a teacher:

*"The Conceptual Curriculum looks good in practice but I can cover an entire unit without actually incorporating what is in the planning document..."*

(Questionnaire response, Teacher, 6 years in the school)

Such inherent weaknesses or challenges of the "process model" of curriculum (Stenhouse, 1975) have been noted earlier (in the Literature Review chapter), with regard to the fact that the strength of such models eventually rests with the quality of teachers. The processes based on "meaning making" can have severe limitations on educational outcomes "when teachers are not up to it" (Smith, 1996, 2000) and the danger of "processes being replaced with the product" (Grundy 1987, p.77) have also been noted earlier in the literature review. Attempts to provide teachers with teaching materials and curriculum packages that focus on the "process of discovery" or "problem-solving", where processes often get reduced to a set of skills and "whether or not students are able to apply the skills is somewhat overlooked" (Grundy 1987, p.77).

The objective of teaching for conceptual understanding through concept-based teaching as proposed by Erickson (2002, p.67) aims to promote the ability of students to "assimilate, sort and pattern information", thereby enabling students

to make connections with prior knowledge to generate new knowledge and newer concepts. However, the contested notion of “*what is a concept?*” and the inherent tension in identifying appropriate concepts by itself seems highly contestable and debatable.

Since concepts are “highly contextual and subject to change through time”, choosing which concepts are appropriate requires a “value judgment” on the part of teachers (Milligan and Wood 2010, p.492). This is particularly challenging in international school settings, where teachers are often from different cultural and geographical backgrounds, which makes the whole notion of a concept highly debatable.

With regard to putting the philosophy of teaching for conceptual understanding into practice, Milligan and Wood (2010) draw attention to the fact that when conceptual understanding is not viewed as “transition points as opposed to learning destinations” (Milligan and Wood 2010, p.488) it simply leads to facts being replaced with concepts, thereby becoming synonymous with teaching for factual understanding. In doing so, the authors warn that there is a possibility of missing out on the whole point of teaching for conceptual understanding. Milligan and Wood (2010) also warn that there is a danger of teachers and students depending largely on a “prescriptive checklist of conceptual understandings that the learners and teachers must *arrive* at”; something that is forcibly incorporated versus something that should naturally *emerge* (inductive process as noted by Erickson) from learning (Milligan and Wood 2010, p.496; emphasis my own). As a teacher in this study noted:

*“Since I was developing the Grade 9 Life Science program at the time, sometimes a new concept would come up or I would have to take out a concept. **Students were given advance warning and an updated unit sheet with objectives and concepts would be given to the students before the test***

(Questionnaire Response- Teacher - 1 year in the school: emphasis my own).

Thus, here, the teacher apparently finds it an obligation to let the students know “what concepts would be assessed in the test”, instead of seeing teaching for conceptual understanding as an exercise to provide students with the strategies and skills for applying their understanding in new situations. This also raises questions in terms of the risks associated with the level of teacher autonomy exercised in school-based curriculum development initiatives. Due to the danger of teachers misinterpreting broad curriculum frameworks resulting in paying mere lip service to high ideals, classroom practices have been reduced to “technical tasks associated with compliance” (Morrison 2003, p. 280).

### **6.1.3 Teachers self-prescribing the curriculum**

*“I have never taught somewhere that I have felt so stifled to teach math in a limited fashion (excepting inescapability of external exam groups) - as our curriculum is prescribed (by ourselves)*

(Questionnaire response, Teacher, 6 years in the school)

The fundamental idea as proposed by Erickson’s (2007) model of Conceptual Curriculum requires that curriculum planning and development move away from prescriptive curriculum to a more flexible framework that inspires deeper thinking for conceptual understanding. This was the intention of the school’s decision to create its own concept-based curriculum to bridge the IB PYP and the IB DP. However, findings revealed that teachers often identify a few concepts and stick with it more like a “menu of concepts to be covered”. For instance, to the question “How does the Conceptual Curriculum look in your classroom?” a teacher responded by saying that:

*“Grade 9-Change; Grade 10 Systems and Relationships”*

(Questionnaire response, Teacher, 2 years in the school)

Here, the teacher is “listing” the curriculum of a whole year in one/two “concepts”. It becomes evident here that the “concepts” (that are transferable and hence at a higher level of abstraction) are thus merely replacing “topics” or “titles for content” (that are non-transferable and hence not abstract), so as to keep the scope of the lesson within the parameters of a few identified concepts (again retaining the “strong classification” by way of a following a prescriptive list of concepts). As noted by some of the respondents:

*“The **conceptual curriculum will be a prescriptive one** because it is so difficult to change units, scope and sequence. .... every year. It’s good to have a constant framework but adjustable units”*

(Questionnaire response, Teacher, 7 years in the school, emphasis my own)

*“I do not agree with some of it but changing one aspect will have a ripple effect down to Gr 7 and up to Gr 10 curriculum so **it is very hard to change and because all resources are there** - there is a reluctance to change as specific people worked so hard to have at least something we can work with*

(Questionnaire response, Teacher, 3 years in the school, emphasis my own).

*“It was frustrating at first, because it **was so prescriptive in the concepts that we were given to work with**. We didn’t have a choice and the concepts were driving the curriculum and didn’t always fit with the topics”*

(Questionnaire response, Teacher, 2 years in the school, emphasis my own).

On the one hand, the frustration of teachers in having to deliver a curriculum that mandates “on September 10<sup>th</sup> we should be in page number 69” has metaphorically been compared to a “butterfly under a pin” (Craig, 2012, p.90).

On the other hand, findings in this study suggested that when teachers are offered the possibility of working with flexible curricular frameworks, realities of everyday practice take over and often lead to teachers “self-prescribing” the curriculum, thereby making the process self-mandated. This, in effect, defeats the very purpose of the school-based curriculum initiative and the intended purpose of curriculum recontextualization undertaken by the school in this study.

Thus, though findings revealed that the teachers were able to explain their perception of the Conceptual Curriculum (thereby the intended outcomes of recontextualizing the curriculum) in positive ways by saying that it “*fosters critical thinking*”, promotes “*higher-order thinking skills*” and so on, how effectively these notions transpire into actual practice becomes questionable, particularly highlighting the unintended outcomes of such curriculum recontextualization.

How ideals such as teaching for conceptual understanding can merely remain in theory, while every day practices can be the clear opposite becomes evident. This brings into focus the inherent danger of teachers being unable to accurately comprehend and put into practice abstract curriculum philosophies, when curriculum is recontextualized from the “Official Recontextualization Field” (ORF) to the “Pedagogic Recontextualization Field” (PRF) (Bernstein 1990, p.192).

#### **6.1.4 Lack of Consensus on what Counts as Essential Knowledge**

Findings also revealed that when broad curricular frameworks are recontextualized, the lack of consensus amongst teachers on what counts as essential knowledge is often a matter of concern. Along with questioning how pedagogical knowledge is constructed, questions were also raised with regard to the dynamics of the power relations embedded within such decision-making processes, since it enabled those in key decision-making positions (such as Curriculum Leaders) to sway the process towards “what they are more

comfortable with”. For instance, concerns were raised about a particular course that currently features certain topics more heavily than the others, with no clear rationale except that it seemed that those who were in decision-making positions at the time of developing the curriculum seemed to be more comfortable teaching those topics versus other topics. As noted by one respondent:

*“Previously (before the arrival of the respondent) the **curriculum would be based on what the teachers' strengths were** e.g. more chemistry based and thus a lot of detail and topics that is not necessary even for HL Biology and it was focused on their area of expertise (the teachers who taught here before). Some areas e.g. plant sciences were totally ignored and not taught at all ...”.*

*“Too much freedom....Some **teachers go off on topics that they find interesting without sticking to what actually needs to be covered for students to be successful in the IB.**”*

*(Questionnaire response, teacher and Curriculum Leader, 4 years in school, emphasis my own)*

Such a situation takes us back to the questions raised by curriculum scholars in the 1970s, such as for instance Kliebard (1970) who argued that the fundamental question for any curriculum theory is: “What should we teach?”, and the related fundamental questions as noted earlier (in the literature review), as raised by Scott (2008, p. 141):

- “What items of knowledge should be included in a curriculum and what items excluded?
- What reasons can be given for including some items of knowledge and excluding others?
- How should those items of knowledge be arranged in the curriculum?”

These are fundamentally important questions that need to be clearly articulated



and agreed upon before schools embark on such curriculum development initiatives through curriculum recontextualization. Though valuing the philosophy of teaching for conceptual understanding, curriculum scholars such as Marzano (2003) vehemently oppose the choice and arrangement of curricular content being left in the hands of individual teachers. Craig (2003) argues that this will result in “curriculum anarchy”:

“Decisions about what to teach in each grade are left up to schools, many of which pass the choice on to teachers. The result is an uneven hodgepodge of instructional aims and subject matter, with content and expectations varying sharply from classroom to classroom and from school to school. [This is] curriculum anarchy” (Craig, 2003, p.13)

Craig (2003, p.13) further recalls a similar situation through the account of a school principal who reported curriculum anarchy becoming a major stumbling block to school improvement efforts:

“While teachers in one grade emphasized multiculturalism, teachers in the next grade judged students on their knowledge of traditional history facts. While one teacher focused on grammar and spelling, another cared deeply about style and voice. . . . These ragged “hand-offs” were a frequent source of unhappiness” (cited in Gordon, 2003, p.59).

In this regard, Westerberg (2009, p.29) argues that “teachers are not self-employed” when it comes to curriculum development and unless the need to focus on learning goals that are collaboratively determined is emphasized, schools will simply become a “collection of educational entrepreneurs held together by a common parking lot” (Westerberg, 2009, p.29).

Findings in this research inquiry also revealed that, though teachers seem to enjoy the freedom and flexibility of working with broad curricular frameworks as opposed to prescriptive curricula, there seem to be some fundamental questions pertinent to curriculum recontextualization remaining unanswered,

for which perhaps teachers seek answers from qualified curriculum development personnel.

Findings from the study have thrown light on the tension involved in school-based curriculum development initiatives, in terms of deciding what is deemed worthy of learning when Erickson's model of curriculum philosophy has been recontextualized by the school and what transpires when further interpreted by the teachers.

Thus, though the initial analysis of teacher responses revealed results that are not uncommon in school-based curriculum initiatives, deeper analysis in the light of Bernstein's theoretical framework revealed some significant issues that may not be readily visible to the casual observer. For instance, at the superficial level, findings revealed that teachers are concerned about the lack of sufficient time, resources and training to engage in the school-based curriculum development initiative of developing the Conceptual Curriculum. Deeper analyses of teacher responses indicated that within the practical issues of school-based curriculum development initiatives, teachers in the study question their ability, proficiency and accuracy in interpreting and putting into practice abstract curricular frameworks.

Findings also reveal that when developing the Conceptual Curriculum program, teachers align more towards a "strongly classified curriculum" (such as the IB DP) rather than a "weakly classified curriculum" (such as the IB PYP). This brings under focus the recontextualization rules that come into play when curricular discourses are appropriated from the ORF to the PRF (Bernstein 1990).

## **6.2.Intended and Unintended Outcomes in Curriculum Recontextualization**

Findings revealed that key decision-makers in the school, who made the decision not to adopt the IB MYP, condemned the program for its “lack of rigor and structure” and the “inherent flaws in design” as a preparation for the IB DP. However, analysis of curriculum documents and the various components of the Conceptual Curriculum as developed by the school revealed that the Conceptual Curriculum program seems to have retained most elements of the IB MYP program (under different titles), while the elements requiring investment of time and collaborative planning (like the Global Contexts and the Approaches to Learning components of the IB MYP) were discarded.

For instance, elements of the IB MYP “Personal Project” have been retained in the “Grade 10 Individual Investigation Project” (though not as rigorously as the former) component of Conceptual Curriculum. Also, the emphasis on community service in the IB MYP has taken the form of the “Grade 8 Service Learning Project” and the fostering of international-mindedness as emphasized in the IB MYP has been incorporated through the “Experiential Learning Project” in the Conceptual Curriculum. Thus, whether school-based curriculum initiatives undertaken in privately-owned, profit-making international schools offer a convenience strategy in terms of the school being able to pick and choose elements from various best practices, so as to create models of curriculum that satisfy its functional requirements and practical day-to-day agendas, is the first point that comes under question. Picking and choosing elements of best practices is not problematic per se, but doing the same simply for the sake of functional advantages is questionable.

The Conceptual Curriculum as created by the school is claimed to be based on the concept-based teaching philosophy as proposed by Erickson (2008). It is significant to note that the concept-based curriculum model that stresses the importance of teaching for conceptual understanding as proposed by Erickson (2008) is intended to be a curriculum philosophy that aims to foster inter-

disciplinary teaching that is more applicable to “weakly classified” curricular frameworks. However, analysis of the data gathered in this study revealed that the Conceptual Curriculum does not require fostering of the inter-disciplinary approach, though emphasis is laid on teaching for conceptual understanding as mentioned by one respondent:

*“Though the conceptual curriculum requires us to teach beyond the facts and foster teaching for conceptual understanding, this effort has remained much within each of the disciplines as there is never enough time to plan collaborative units in the middle school... In reality we as teachers focus more towards getting our 11 and 12th graders ready for the IB (DP examinations)...”*

(Interview response, Teacher and Curriculum Leader).

This, however, seems far from what was intended when the original plans were laid for the Conceptual Curriculum, as stated by the former Director who initiated the Conceptual Curriculum programme:

*“It is conceivable that in the implementation of the conceptually-based design over time there has been a more disciplinary focus **but this is far from what was intended** as the concepts provide explicit opportunities for links to be made within and among disciplines. It was expected that while Historians were discussing relationships in the context of cross-cultural conflicts across borders, Mathematicians would be discussing relationships in the context of independent and dependent variables and Scientists would be discussing relationships in the periodic table”*

(e-mail response - former Director - dated: April 26<sup>th</sup>, 2013, emphasis my own)

Thus, even though the school decided to create its own curriculum to bridge the IB PYP and the IB DP, the Conceptual Curriculum model seems to foster

more of a disciplinary focus than an inter-disciplinary focus (thereby aligning more towards a “strongly classified curriculum” (such as the IB DP) rather than a “weakly classified curriculum” (such as the IB PYP), in spite of seeking continuity from a highly inter-disciplinary weakly classified curriculum program such as the IB PYP. Findings revealed that though the original intention of the school was to foster inter-disciplinary teaching as in the IB MYP program, the Conceptual Curriculum as created by the school is more disciplinarily focused for grades 7-10, as the school has created a “strongly classified” Conceptual Curriculum programme in place of a “weakly classified” IB MYP programme, to bridge the IB PYP and the IB DP.

Also, the concept-based curriculum philosophy that fosters inter-disciplinary teaching through “weak classification” has been transformed into a disciplinary focused approach that fosters “strong classification” when it has been appropriated by the school. In terms of the reasons for the Conceptual Curriculum retaining a disciplinary focus, the Secondary school Principal cited “lack of opportunities for collaborative planning” and “time constraints” as the main reasons. According to the secondary school Principal:

*“It was a very positive and energetic spirit that guided the whole initiative. Eventually however, the practical difficulties such as the lack of time, proper training and lack of staff expertise all added up to the tension and the first year saw an exodus of teachers from the school...”*

(Interview response, secondary Principal, Dated: April 15<sup>th</sup>, 2013: see Appendix: 6)

Analysis of the curriculum documents indicated that the Conceptual Curriculum framework adopted by the school has been modified and adapted to suit everyday requirements and practical agendas. For instance, though the former Director who initiated the Conceptual Curriculum expressed the notion that the framework was adopted to foster inter-disciplinary thinking and planning, actual practice indicates the clear opposite.

Table 10 offers a summary of the key differences between the intended ideal curriculum philosophy as proposed by Erickson (2007) and the resultant philosophy/practice as it was transformed when appropriated by the school, thereby highlighting the intended outcomes when engaging in developing the Conceptual Curriculum and the unintended outcomes when appropriated by the school:

<b>Erickson's intended model of Conceptual Curriculum</b>	<b>Appropriated model of Conceptual Curriculum created by the school</b>
Emphasis on teaching for conceptual understanding	Emphasis is on teaching for conceptual understanding in philosophy, but practice indicates it a 'compliance exercise'.
Interdisciplinary approach- weakly classified	Disciplinary approach – strongly classified.
Teachers and students co-create knowledge- possible in weakly classified curricula through weak pacing	Teachers not inclined to give up 'power and control' in the classroom – challenging in strongly classified curricula that is strongly paced
Inductive teaching for conceptual understanding that promotes deep understanding	Teachers directly giving out the concepts at the beginning of the lesson and thereby superficial engagement in concept-based teaching
Factual knowledge forms the base for teaching for conceptual understanding	Teachers express concern over the lack of sufficient emphasis on factual knowledge (because of misinterpreting the philosophy of teaching for conceptual understanding)

Table 10: Summary of the key differences between the curriculum philosophy as proposed by the PRF and the resultant philosophy/practice as it was transformed when appropriated by the ORF

Thus, findings reveal that during curriculum recontextualization the practical agendas of the school, in terms of working around time and staffing issues, have become the default-deciding factor in shaping the Conceptual Curriculum program. The fact that school-based curriculum development initiatives allow sufficient flexibility for schools to adapt to meet everyday demands becomes evident, thereby pointing out that school-based curriculum initiatives lose rigor and form in the cracks of everyday practice.

In terms of the factors that teachers consider when choosing the curriculum content for the Conceptual Curriculum programme, the most recurring theme was: “what is needed for the IB DP” programme. Findings revealed that the IB DP has thus been given more weightage than the IB PYP in developing the grades 7-10 Conceptual Curriculum, as indicated by the following response:

*“IB preparedness is the main component in establishing our 7-10 program - it is a “crystal-clear” benchmark”*

(Questionnaire response, Teacher and Curriculum Leader, 3 years in the school)

The above sentiment was also reflected in the words of the current Director who stated “preparation for IB DP” as being the reason that the Conceptual Curriculum has retained a disciplinary focus:

*“The middle school clearly needed a robust curriculum that fed into the IB program which is highly disciplinary focused (except for TOK and Extended Essay which gives students an opportunity to make connections) and hence there was no point in mandating a ‘forced interdisciplinary’ teaching. After all, the challenge was to prepare students for the breadth and rigor of the IBDP program and within that teaching for conceptual understanding, application skills etc”*

(Interview response dated: April 15<sup>th</sup>, 2013 )

Thus, when having to negotiate between a “multiplicity of pedagogic fields” (Cambridge, 2011, b) teachers seem to be inherently aligning to something that is a “crystal clear benchmark” as opposed to something that is more flexible and open-ended. The disciplinary focus of the Conceptual Curriculum and the tendency of teachers to align more towards the IB DP rather than the IB PYP (even in lower grades such as 7 and 8) has thus resulted in a quick transition from the weakly classified inter-disciplinary IB PYP curriculum to a strongly classified Conceptual Curriculum with disciplinary focus.

This also brings under question why teachers align more towards a “strongly classified curriculum” such as the IB DP, rather than a “weakly classified curriculum” such as the IB PYP, when they have the freedom to choose. While keeping the IB DP in mind can be considered appropriate in developing the curriculum for grades 9 and 10 (the pre-IB DP years), the fact that teachers mentioned that they often do not keep the IB PYP program in mind even when developing the course content for grades 7 and 8 is a matter of concern.

Thus here, the degree of autonomy exercised by teachers in the creation of pedagogic knowledge through the process of selection of course content comes under question. Findings reveal that in such a situation, teachers automatically align towards a “strongly classified collection code type” of curriculum wherein control and power rests more with the teachers than with the students as would be necessitated by a weakly classified integrated type curriculum.

In this context, it also becomes essential to ask: “in whose interest is the apartness of things, and in whose interest is the togetherness?”, as Bernstein (1996, p.11) points out, “when classification becomes weaker (or stronger), we must have an understanding of the recontextualization principles which construct the new discourses and the ideological bias that underlies any such recontextualizing” (Bernstein 1996, pp. 9-11). Here, the recontextualization



principles and ideological biases (Bernstein 1996, pp. 9-11) that have resulted in the stronger classification have come under question.

Thus, the ideal intention as proposed by the ORF (i.e. IB and Erickson) is evident; the same philosophy being ambitiously adopted by the school is also evident. However, what happens when teachers appropriate it and when it is impacted by the realities of everyday practice raises some areas of concern. Bernstein's theory has been applied to offer clarification on the contradictory practices that exist between the school that has fostered school-based curriculum development initiatives and the key institutions (ORF) that define or shape curricular practices in IB schools (PRF).

Findings revealed that while teachers seem to enjoy the freedom to work with flexible curricular frameworks, teachers also see curriculum development as a "task that needs to be completed", rather than viewing it as an opportunity for continuous ongoing reflection and development. As one teacher succinctly put it:

*"The building and rebuilding of the curriculum has been a long road. I am happy to have been involved in it, but **also to be finished with it!**"*

(Questionnaire response, teacher, 6 years in school, emphasis my own)

### **6.3 Reflections on the study**

I shall begin by reflecting on some of the things that I am pleased with, with regard to my thesis work, before moving on to discussing some of the apprehensions and challenges I faced during the study. There are two things that I am particularly pleased with, in terms of the preparations that happened before embarking on the final thesis. Firstly, the fact that I spent a significant amount of time before embarking on the study, to brainstorm, evaluate, discuss and finally decide on my topic of study (July 2011 to July 2012 : see Appendix: 20 for the complete timeline of the study).

Once I began my thesis work, I am pleased to say that I not only set my personal targets of reporting to my supervisors between the 25<sup>th</sup> and 30<sup>th</sup> of every month, but also that I met this target almost every single month (except December). It has certainly been challenging to meet this commitment, considering that I also work full-time, but doing so has helped me stay both focused and connected with my ideas and writing and to approach the task that seemed formidable, in small steps. Whether every Ed.D student would be lucky enough to have supervisors as supportive and patient as mine, to read and reply to my reports every month (that sometimes grew more and more confusing as I produced subsequent drafts), is another story altogether.

In terms of the challenges that I faced, my “insider researcher” status brought about some interesting dilemmas. Initially, I struggled with making explicit to myself and in my writing that it was not my “insider knowledge” that was being used to drive my data analysis. I ensured that this did not happen by making sure that any claim that I made was supported by substantial evidence, by including verbatim quotes and also by constantly referring back to the coding sheets. Ensuring that cyclical coding was adopted also enabled the emerging themes to speak for themselves. I also needed to make sure that I struck a clear balance between maintaining insider relationships and striving for distance in order to make sense of the data (Breen, 2007).

At one point, I was seemingly guilty of “using my colleagues” to provide me with data for my inquiry. Interestingly, Brown (2004) points out that novice researchers who seek to attain higher education degrees through such insider research are often confronted with such situations, as at the outset it is apparent that the most benefited party/person through such research projects is the researcher himself/herself. However, as one colleague of mine noted, teachers in international schools are often engaged in furthering their studies and it is not unusual to receive e-mails and requests as a matter of routine to take a questionnaire/interview to provide data towards masters or doctoral degrees, or even maybe towards completing assignments for retaining their teaching licenses. Due to this, teachers are often supportive and understanding of each others’ situations, as this eventually turned out to be true in my experience as well.

In terms of my apprehensions, there were two major fears that kept me very nervous for a long time. One, that my study would turn out to be very uninteresting for the participants and thereby result in participants not being engaged or willing to provide data. However, approaching the study in a step-by-step manner helped reinforce at each step that the study is interesting and meaningful to the participants and that participants willingly contributed to the data collection process. Once I overcame the fear that the study would be uninteresting, I worried that my data collection and analysis would produce trivial data and those reading my paper would say “you spent all that time and energy collecting and analyzing data for two years to tell us *this??*”. This was a fear that I lived with for many months.

However, here’s where I believe that the complex theoretical framework that I adopted in the study added value. Analyzing the data through Bernstein’s theoretical framework helped me justify not only the complexity of the findings, but also in relating the findings to wider educational debates in terms of what happens when curricular discourses are recontextualized from the ORF to the PRF and the resultant intended and unintended outcomes. From an insider

researcher perspective, Bernstein's theoretical framework also enabled me to maintain an "analytical versus normative" (Labaree, 2003, p.14) approach to the research.

Having said that, I also have to acknowledge the challenges faced in using Bernstein's theories as an analytical framework, particularly since Bernstein's theories have been critiqued for being "virtually unreadable, the complexity such that the original illuminative nature of the concepts has been obscured" (Walford, 1994). However, as Cause (2010, p.4) points out, although Bernstein's (1971,1975) intention was not to provide theory that researchers could use as a framework to describe practice, his theories do provide a sound basis to analyze what goes on in educational settings, particularly with curricular orientations and what rules in effect come into play through recontextualization and when curricular discourses are moved from the ORF to the PRF. As a researcher, I believe that Bernstein's theories offer the required analytical framework and the rigor to explore complex and intricate curriculum issues that may not necessarily be obvious to the casual observer.

Bernstein (1971) has not written specifically in relation to IB World schools, and utilizing Bernstein's (1971,1975) theoretical framework in this context has been a steep learning curve, but a valuable experience indeed. What I would have certainly liked to do better if I could do the same study again is to have been an active participant in many of the online research communities that come together to discuss and debate Bernstein's theories.

The purpose of qualitative inquiry that is based on "informational and not statistical considerations" is to "maximize information and not to facilitate generalization" (Lincoln et al, 1985, p.202). It is thus acknowledged that the purpose of this study has not been to generate generalizable outcomes, though case studies that utilize a previously developed theory as a theoretical framework or as an interpretive lens can be considered to qualify for "analytical generalization" (Yin 1989).

Thus, though I acknowledge that the purpose of the study has not been to generate generalizable outcomes, some of the outcomes of this study may seem applicable to the wider circles of IB World schools that choose to adopt broad curricular frameworks rather than prescriptive curricula. It is certainly worth exploring in a future study how such curriculum initiatives impact student learning as the question is also relevant in the context of schools that choose, for instance, the IB MYP programme. Even here, the curricular framework is quite broad and requires teachers to be active agents in the recontextualization of curriculum.

The burning question that motivated this piece of research is what, in effect, happens when curriculum discourses that are proposed by institutions such as the IB and by text book authors (such as Erickson in this case) are adopted and appropriated by schools wherein teachers have to play a major role of interpreting the broad frameworks? It is a matter of pride for the school that, in spite of the frustrations and challenges teachers express in dealing with the school-based curriculum development initiative of developing the Conceptual Curriculum, the majority of the teachers still seem to prefer a flexible framework to work with rather than a prescriptive curriculum. This is certainly reason to believe that teachers see the value and purpose in being active agents in curriculum recontextualization and that teachers do value the notion of teaching for conceptual understanding. However, this, when coupled with having to choose the curriculum content and developing a coherent curriculum, has made the experience both challenging and burdensome for the teachers.

I conclude my reflections by saying that, regardless of the frustrations and challenges encountered in the journey of developing the Conceptual Curriculum, the school needs to celebrate the fact that its decision to emphasize the value of teaching for conceptual understanding (based on Erickson's model of concept-based instruction) in as early as 2006, has indeed been visionary and proactive. Particularly considering that the IB, in 2012, has redesigned its program models to emphasize the value of concept-based

teaching. As the former director noted, *“It is more than coincidental that even the IB MYP has turned to Lynn Erickson to assist in shaping the MYP to be more conceptual in design”*.

I conclude this thesis, convinced that there is a significant meaning and value in teacher voices and perceptions that have been expressed through this study. The study has also helped in identifying some potential areas of future research. A recommendation for a future study would be to juxtapose the findings emerging from this study with classroom observation that analyses practice, so as to see how they correlate. The consistency and coherence offered by non-IB programs that bridge the IB PYP and the IB DP also seem useful areas that merit further investigation.

## **References**

- Abbott, A., 2004. *Methods of discovery: Heuristics for the social sciences*. New York: W.W. Norton.
- Agranoff, R. and Radin, B.A., 1991. "The comparative case study approach in public administration", *Research in Public Administration*, Vol. 1, pp. 203-31.
- Amaratunga, D. and Baldry, D., 2001. "Case study methodology as a means of theory building", *Work Study*, Vol. 50 No. 3, pp. 95-104.
- Apple, M. W., 1998. *The Curriculum: Problems, Politics, and Possibilities*, second revised edition Albany: State University of New York Press, 1998. Edited with Landon Beyer.
- Auerbach, C. F., & Silverstein, L. B., 2003. *Qualitative data: An introduction to coding and analysis*. New York University Press.
- Berg, B.L., 2001. *Qualitative Research Methods- For the social Sciences*, 4<sup>th</sup> ed., Pearson, Harlow.
- Bell, J., 1987. *Doing Your Research Project: A Guide for First-Time Researchers. Education and Social Science*. Open University Press
- Bell, J., 2005. *Doing Your Research Project: A Guide for First-Time Researchers in Education and Social Science, 4th edition*. London: Open University Press.
- Bernstein, B., 1971. On the Classification and Framing of Educational Knowledge. In M. Young (Ed.), *Knowledge and control* (p. 47-69). London: Collier-Macmillan.
- Bernstein, B., 1975. *Class Codes and Control. Volume 3: Towards a Theory of Educational Transmissions*. London, Henley and Boston: Routledge and Kegan Paul.
- Bernstein, B., 1990. *The Structuring of Pedagogic Discourse* (Vol. 4). London: Routledge & Kegan Paul.
- Bernstein, B., 1996. *Pedagogy, Symbolic Control and Identity. Theory, Research, Critique*. Revised Edition. United States of America: Rowman & Littlefield Publishers, INC.
- Bernstein, B., 2000. *Pedagogic, Symbolic Control and Identity*. Oxford, England: Rowman & Littlefield Publishers, Inc.
- Bezzina, M., 1991. Teachers' perceptions of their participation in school based curriculum development: a case study. *Curriculum perspectives*, 11 (2), 39-47.

- Billett, S (2006). Constituting the workplace curriculum, *Journal of Curriculum Studies*. Vol. 38(1), p.31-48.
- Bobbitt, F., 1918. *The Curriculum*, Boston: Houghton Mifflin.
- Bonoma, T.V., 1985. "Case research in marketing: opportunities, problems, and a process", *Journal of Marketing*, Vol. XXII, pp. 199-208.
- Boulton, D, and Hammersley, M., 1996. Analysis of Unconstructed Data. In: Sapsford, R. and Jupp, V. Eds. *Data Collection and Analysis*, pp282-297. London: Open University Press.
- Bourdieu, P., 1992. *Language and Symbolic Power* (Cambridge, Polity Press).
- Bonner, A. & Tolhurst, G., 2002. Insider-outsider perspectives of participant observation. *Nurse Researcher*, 9(4), 7-19.
- Brannen, J., 2005. Mixing methods: the entry of qualitative and quantitative approaches into the research process. *International Journal of Social Research Methodology*, 8 (3), 173-84.
- Breen, L. J., 2007. The researcher 'in the middle': Negotiating the insider/outsider dichotomy. *The Australian Community Psychologist*, 19(1), 163-174.
- British Educational Research Association., 2011. "Ethical Guidelines for Educational Research". Available at: <http://www.bera.ac.uk/wp-content/uploads/2014/02/BERA-Ethical-Guidelines-2011.pdf>. Accessed on: March 18th, 2012.
- Bromley, D.B., 1986. *The Case-Study Method in Psychology and Related Disciplines*. John Wiley, Chichester, Great Britain.
- Brophy, J. E and Alleman, J., 2006. *Children's Thinking about Cultural Universals* (Mahwah, NJ: Lawrence Erlbaum Associates).
- Brown, J., 2004. Seduction and betrayal revisited: Ethical dilemmas of insider research. Paper presented at the AARE International Education Research Conference Melbourne Nov 29 - Dec 2, 2004. Available at: <http://www.aare.edu.au/04pap/abs04.htm> Accessed on : March 4, 2013
- Bruner, J., 1960. *The Process of Education*, Cambridge, MA: Harvard University Press.
- Bryman, A., 2001. *Social Research Methods*. Oxford University press: Oxford.
- Bryman, A., 2007. Barriers to integrating quantitative and qualitative research. *Journal of Mixed Methods Research*, 1(1), 8-22.
- Burton, N, Brundrett, M and Jones, M., 2008. *Doing Your Education Research Project*. London: SAGE.



Cambridge, J., 2002. Global product branding and international education, *Journal of Research in International Education*. 1(2): 227-43.

Cambridge, J., 2011a: 'The IB Diploma Programme as pedagogic discourse', in Taking the IB Diploma Programme Forward, Hayden, M. and Thompson, J.J. (eds). Woodbridge: John Catt Educational (pp. 65-76).

Cambridge, J., 2011b: 'International curriculum', in *Schooling Internationally: Globalization, Internationalization and the Future for International Schools*, Bates, R (ed). Abingdon: Routledge (pages 121-47).

Catt, J. *Which School?*,. 2007 Available at [www.johncatt.com](http://www.johncatt.com). Accessed on: April 10<sup>th</sup>, 2011.

Cause, L., 2010. Bernstein's Code Theory and the Educational Researcher. *Asian Social Science*. Volume 6, No: 5: May 2010.

Chaffee, E. E., & Tierney, W. G., 1988. *Collegiate culture and leadership strategies*. New York: Macmillan.

Chappell, K.K. and Killpatrick, K., 2003. Effects of concept-based instruction on students' conceptual understanding and procedural knowledge of calculus. *Primus*, 2003, XIII(1), 17–37.

Chesler, M., 1987. *Professional views of the "dangers" of self-help groups* (CRSO Paper 345). Ann Arbor, MI: Centre for Research on Social organization.

Christians, C.G., 2005. Ethics and politics in qualitative research. In, Norman K. Denzin and Y.S. Lincoln (eds.), *Handbook of Qualitative Research* (3rd ed.). pp. 139-164. Thousand Oaks, CA: Sage.

Cocklin, B., Simpson, N., & Stacey, M., 1995. *School planning to achieve student outcomes: Processes of change in a secondary school*. Paper presented at the Annual conference of the Australian Association for Research in Education, Hobart, November 26-30. Available on: <http://www.aare.edu.au/95pap/cockb95082.txt> Accessed on 15 June, 2004,

Coghlan, D., 2003. Practitioner research for organizational knowledge: Mechanistic- and organic- oriented approaches to insider action research. *Management Learning*, 34(4), 451-463.

Coghlan D., and Barannick, T., 2005. *Doing your Action Research in your own organization*. 2<sup>nd</sup> Edition. Sage, London.

Cohen, L., Manion, L. & Morrison, K. (Eds.), 2000. *Research Methods in Education* (5th ed.). London: Routledge Falmer.

Cohen, L., Manion, L., and Morrison, K., 2003. *Research Methods in Education* (5th Edition). Routledge Falmer, London and New York.

Cohen, L., and Manion, L., 2007. *Research Methods in Education*. Abingdon, Routledge.

Cohen, L. Manion, L., and Morrison, K., 2011. *Research Methods in Education* (7th Edition). Routledge Falmer, London and New York.

Craig, J., 2003. Beyond the rock and the hard place. *Educational Leadership*, 61(3), 12-16.

Craig, J. C., 2012. "Butterfly under a Pin": An emergent Teacher Image amid Mandated Curriculum Reform. *Journal of Educational Research*. 105:2, 90-101.

Creswell, J. W., 1994. *Research design: Qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.

Crotty, M., 1998. *The foundations of social research: Meaning and perspective in the research process*. St Leonards, New South Wales, Australia: Allen & Unwin.

Day, C., 1990. United Kingdom: Managing Curriculum Development at Branston School and Community College. In C. Marsh, C. Day, L. Hannay & G. McCutcheon (Eds.), *Reconceptualising school-based curriculum development* (pp. 140-172). London: The Falmer Press.

Denscombe, M., 2003. *The Good Research Guide for Small-Scale Social Research Projects*. Maidenhead, Open University Press.

Denscombe, M., 2008. Communities of practice: a research paradigm for the mixed methods approach. *Journal of Mixed Methods Research*, 2 (3), 270-83.

DeLyser, D. (2001). "Do you really live here?" Thoughts on insider research. *The Geographical Review*, 441-453.

Denzin, N.K., 1978. *Sociological Methods: A Sourcebook*, 2nd ed., McGraw-Hill, New York, NY.

Denzin, N.K., 2008. The new paradigm dialog and qualitative inquiry. *International Journal of Qualitative Studies in Education*, 21 (4), 315-25.

Doherty, C., 2010. *Re-centering the curricular market: Pedagogic identities in IB Diploma programs in Australia*. Paper presented at the International Basil Bernstein Symposium 2010, Griffith University, Brisbane, 30<sup>th</sup> June to 3<sup>rd</sup> July 2010.

- Drever, E., 2003. *Using Semi-Structured Interviews in Small-Scale Research - A teacher's guide*. Edinburgh, SCRE Publications.
- Dwyer, C. S., 2009. The Space Between: On Being an Insider-Outsider in Qualitative Research. *International Journal of Qualitative Methods* (2009, 8, 1). Commons Attribution License. Available at: <http://creativecommons.org/licenses/by/2.0>
- Eisenhardt, K.M., 1989. Building theories from case study research. *Academy of Management Review*, Vol. 14 No. 4, pp. 532-50.
- Ellis, A. K. 2004. Exemplars of curriculum theory. Larchmont, NY: Eye on Education.
- Eraut, M., 1994. *Developing Professional Practice*. London: Routledge-Falmer.
- Ercikan, K. and Roth, W.M., 2006. What good is polarizing research into qualitative and quantitative? *Educational Researcher*, 35(5), 14:23
- Erickson, H.L., 2002. *Concept-based Curriculum and Instruction: Teaching Beyond the Facts*. Thousand Oaks, CA: Corwin press.
- Erickson, H. L., 2007. *Concept based curriculum and instruction for the thinking classroom*. Thousand Oaks, CA : Corwin Press.
- Erickson, H. L., 2008. *Stirring the Head, Heart, and Soul : Redefining Curriculum, Instruction, and Concept-Based Learning*. Thousand Oaks, CA: Corwin Press.
- Erickson, H. L., 2012. Concept-based teaching and learning. *IB Position paper*: IBO.
- Etherington, K., 2004. *Becoming a reflexive researcher: Using our selves in research*. London: Jessica Kingsley.
- European Council of International Schools., 2007. Available at: <http://www.ecis.org>. Accessed on 4<sup>th</sup> April, 2012.
- Feagin, J., Orum, A.M. and Sjoberg, G., 1991. A Case for the Case Study, The University of North Carolina Press, Chapel Hill, NC.
- Feilzer, M. Y., 2010. Doing mixed methods research pragmatically: implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research*, 4 (1), 6-16.
- Fink, A., 2003. *How to Manage, Analyze and Interpret Survey Data-* 2<sup>nd</sup> Edition. London: SAGE.
- Fisher, C., 2004. *Researching and Writing a Dissertation – For Business Students*. Prentice-

Hall, Englewood Cliffs, NJ.

Floyd, A. & Arthur, L., 2010. *Researching from within: Moral and ethical issues and dilemmas. Presented at SRHE Annual Conference, Cardiff, 14th-16th December 2010.* Available on: [www.reading.ac.uk/education/about/staff/alan-floyd.aspx](http://www.reading.ac.uk/education/about/staff/alan-floyd.aspx) Accessed on May 27<sup>th</sup> 2011

Gardner, H., 1999. "Multiple approaches to understanding". In Charles M Reigeluth's *Instructional-design theories and models: A new paradigm of instructional theory*. Mahwah, New Jersey. Lawrence Erlbaum Associates.

Gellar, C. A., 2002. 'International education: a commitment to universal values'. In M. Hayden, J. Thompson and G. Walker (eds) *International Education In Practice*, pp. 30-9, London: Kogan Page Ltd.

Gerrish, K., 1997. Being a 'marginal native': Dilemmas of the participant observer. *Nurse Researcher*, 5(1), 25-34.

Giddens, J.F., 2007. "Rescuing Nursing Education from Content Saturation : The Case for a Concept-Based Curriculum" . *Journal of Nursing Education*. Vol 46, Issue 2, 65-69.

Gilbert, R. and Vick, M., 2004. The knowledge base for studying society and environment. In R. Gilbert (ed). *Studying Society and Environment : A Guide for Teachers*, 3<sup>rd</sup> ed. (Melbourne: Thomson Learning Nelson), 80-92.

Glaser, B. G., & Strauss A.L., 1967. *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

Glesne, C., 2006. *Becoming Qualitative Researchers: An Introduction*. New York: Pearson Publishers Inc.

Goodlad, J. (n.d.). The impact of Basic Principles of Curriculum and Instruction. Tyler, Ralph W., Papers, [Box 7, Folder 1], Special Collections Research Center, University of Chicago Library.

Goodlad, L. I., 1979. *Curriculum Inquiry*. New York: McGraw-Hill.

Gorard, S. and Smith, E., 2006. Editorial: combining numbers with narratives. *Evaluation and Research in Education*, 19 (2), 59-62.

Gordon, D. T. (Ed.), 2003. *A nation reformed? American education twenty years after A Nation At Risk*. Cambridge, MA: Harvard Education Press.

Gray, D. E., 2004. *Doing research in the real world*. London: Sage.

Gregory, A., 2000. Problematizing Participation: A Critical Review of Approaches to Participation in Evaluation Theory. *Evaluation*, 6(2), pp. 179-199. Available at:

<http://evi.sagepub.com/content/6/2/179.full.pdf+html> Accessed on 6 June 2011

Greene, J.C., 2008. Is mixed methods social inquiry a distinctive methodology? *Journal of Mixed Methods Research*, 2 (1), 7-22.

Grunbaum, N. N., 2007. Identification of ambiguity in the case study research typology: what is a unit of analysis? *Qualitative Market Research : An International Journal*. Vol 10, No, 1, 2007, pp. 78-79. Emerald Group Publishing. Available at: [www.emeraldinsight.com/1352-2752.htm](http://www.emeraldinsight.com/1352-2752.htm). Accessed on: May 2013.

Grundy, S., 1987. *Curriculum: Product or Praxis?* Lewes: Falmer Press.

Guba, E.G. and Lincoln, Y.S., 1981. *Effective Evaluation: Improving Responsive and Naturalistic Approaches*, Jossey-Bass, San Francisco, CA.

Gummesson, E., 1988. *Qualitative methods in management research*. Lund, Norway: Student literature, Chartwell-Bratt.

Hallinger P, Walker A and Lee M., 2010. A Study of Successful Practices in the IB Programme Continuum. Hong Kong: The Joseph Lau Luen Hung Charitable Trust Asia Pacific Centre for Leadership and Change, The Hong Kong Institute of Education.

Hallinger, P., Lee, M., and Walker A., 2011. Program Transition challenges in International Baccalaureate Schools. *Journal of Research in International Education*. 2011 10: 123.

Hannay, L., 1990. Canada: School-based curriculum deliberation. In C. Marsh, C. Day, L. Hannay & G. McCutcheon (Eds.), *Reconceptualising school-based curriculum development* (pp. 140-172). London: The Falmer Press.

Harreveld, R. E., 2004. Ethical and political dimensions of strategic risk-taking in research. In P.

Coombes, M. Danaher, & P. A. Danaher (Ed.), *Strategic uncertainties: Ethics, Politics and*

*Risk in Contemporary Educational Research* (pp. 39-51). Mt Gravatt, Qld: Post Pressed

Hartley, J. F., 1994. Case studies in organizational research. In *Qualitative methods in organizational research: A practical guide*, edited by C. Cassell and G. Symon, 209–29. London: Sage.

Hayden, M. C And Thompson, J.J., 1995a. 'International schools and international education: a relationship reviewed'. *Oxford Review of Education* 21 (3): 327-45.

Hayden , M.C. and Thompson, J.J., 1995b. 'International education: the crossing of frontiers'. *International Schools Journal* (25)1: 13-20.

Hayden M C., 2006. *The International Baccalaureate and International Education*, in T Pound (ed) *The International Baccalaureate Diploma Programme: An Introduction for Teachers and Managers*, Routledge: London

Hayden M. C., 2006. *Introduction to International Education: International Schools and Their Communities*, Sage: London

Hayden M. C., 2011. Transnational spaces of education: the growth of the international school sector, /Globalization, Societies and Education/, 9, 2, 211-224.

Hayden M. C and Thompson J J (eds)., 2011. *Taking the MYP Forward*, Woodbridge: *John Catt Educational Ltd*.

Healy, M. and Perry, C., 2000. "Comprehensive criteria to judge validity and reliability of qualitative research within the realism paradigm", *Qualitative Market Research: An International Journal*, Vol. 3 No. 3, pp. 118-26.

Herrmann, A. W., 1989, March. The participant observer as "insider": Researching your own classroom. Paper presented at Annual Meeting of the Conference on College Composition and Communication, Seattle, WA.

Huebner, D., 1966. *Curricular language and classroom meanings*. In J. MacDonald and R.

Hill, I., 2002. 'The history of international education: an international baccalaureate perspective', in M. Hayden, J. Thompson and G. Walker (eds) *International Education in Practice*, pp. 18-30. London: Kogan Page Ltd.

Hill, I., 2003. The International Baccalaureate. In *Phillips and Pound (edited by): The Baccalaureate: A Model for Curriculum Reform*. Routledge: London.

Hitchcock, G. and Hughes, D. (2<sup>nd</sup> ed). 1995. *Researcher and the Teacher: A qualitative Introduction to School-Based Research*. Routledge: London.

Hlebowitsh, P. S., 1992. Amid behavioral and behaviorist objectives: reappraising appraisals of the Tyler Rationale. *Journal of Curriculum Studies*, 24(6), 533-547.

IBO 2000. Making the PYP happen. International Baccalaureate.

- IBO 2001. Developing student assessment procedures within the MYP. IB Research Notes 1(4): 3-10.
- IB. 2002. *Middle Years Programme : Programme evaluation self-study questionnaire*. Geneva. International Baccalaureate.
- IB 2005. *Programme standards and practices*. Cardiff. International Baccalaureate.
- IB 2006. *IB Learner Profile booklet*. Cardiff. International Baccalaureate.
- IB 2008 (a). *Towards a Continuum of international education*. International Baccalaureate.
- IB 2008 (b). *MYP: From Principles into practice*. International Baccalaureate.
- IB 2009 . The Primary Years Program A Basis For Practice.
- IB 2009-2010. MYP coordinator's handbook. International Baccalaureate.
- IB 2010 (a). A study of successful practices in the IB program Continuum. International Baccalaureate.
- IB 2010 (b). *The History of the Middle Years Programme*, Cardiff: International Baccalaureate.
- IB. 2010 (c). The Primary Years Programme as a model of transdisciplinary learning. Cardiff. International Baccalaureate.
- IB 2010 (d). Programme Evaluation Guide and Self-study Questionnaire. International Baccalaureate.
- IB 2012. Launch of the new programme models. International Baccalaureate.
- IB 2014 (a). Available at: <http://www.ibo.org/programmes/index.cfm> Accessed on: January 2012.
- IB 2014 (b). Available at : <http://www.ibo.org/history/>. Accessed on: January 2012.
- Janesick, V.J.,1998. Journal writing as a qualitative research technique: history, issues, and reflections. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA, April 13–17, 1998.
- Johnson, R. B. and Onwuegbuzie, A. J. and Turner, L. A., 2007. Toward a definition of mixed methods research. *Journal of Mixed Methods Research*, 1 (2), 112-33.
- Joslin, P., 2002. Teacher Relocation: Reflections in the context of International Schools. *Journal of Research in International Education*.1:33.
- Kanuha, V. K., 2000. "Being" native versus "going native": conducting social work research as

an insider. *Social Work*, 45(5), 439-447.

Kelly, A. V., 2004: 5th edition. *The Curriculum: Theory and Practice*, Paul Chapman

King, N. and C. Horrocks., 2011. Interviews in Qualitative Research. London, SAGE Publications Ltd.

Kliebard, H., 1970. Reappraisal: the educator's educator. *Change*, 10, 28-35.

Kvale, S., 2005. Tens Standard Objections to Qualitative Research Interviews. *Journal of Phenomenological Psychology*, 25(2),147.

Labaree, D. F., 2003. The Peculiar Problems of Preparing Educational Researchers. *Educational Researcher*, Vol. 32, No 4 (May, 2003), pp 13-22.

Labaree, R. V., 2002. The risk of 'going observationalist': negotiating the hidden dilemmas of being an insider participant observer. *Qualitative Research*, 2(1), 97- 122.

Leach, R. J., 1969. International Schools and their Role in the Field of International Education. Oxford: Pergamon Press.

Leech, N. L. and Onwuegbuzie, A.J., 2009. A typology of mixed methods research designs. *Quantity and Quality*, 43 (2), 265-75.

Levinson, B., Sutton, M. & Winstead, R., 2009. Education policy as a practice of power:Theoretical tools, ethnographic methods, democratic option. *Educational Policy*, 23(6), 767—795.

Lincoln, Yvonna S., and Guba, Egon G., 1985. *Naturalistic inquiry*. Newbury Park, CA: Sage.

Marsh, C., 1990. Australia: establishing a Unit Curriculum for Years 8-10 at River Valley Senior High School. In C. Marsh,C. Day,L. Hannay & G. McCutcheon (Eds.), *Reconceptualising school-based curriculum development* (pp. 73-97). London: The Falmer Press.

Marsh, J, C., 1997. Planning, Management and Ideology: Key Concepts for Understanding Curriculum 2: A Fully Revised and Extended Edition. The Falmer Press. Hong Kong.

Marsh, C. J., 2004. *Key Concepts for Understanding Curriculum* (3rd ed.). London: Routledge, Falmer.

Marsh, C. J., 2006. "Key Concepts for Understanding Curriculum". Third Edition. Routledge, London.

Marsh, C. J. and Willis, G., 2007. (4<sup>th</sup> ed). "Curriculum- Alternative Approaches, Ongoing Issues". Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.



Marshman, R., 2010. *IB Position Paper*. "Concurrency of learning in the IB Diploma Programme and Middle Years Programme". IB 2010.

Marzano, R. J., 2003. *What works in schools: Translating research into action*. Alexandria, VA: Association for supervision and Curriculum Development.

Matthews, M., 1988. 'The ethos of international schools', MSc dissertation, University of Oxford.

Matthews, M., 1989. 'The Uniqueness of International Education – Part 2' in *International Schools Journal* Vol. 18, pp. 24-34 ECIS: Geneva.

May, S., 1992. The relational school: fostering pluralism and empowerment through a 'language policy across the curriculum'. *New Zealand Journal of Educational Studies*, 27 (1), 35-51.

Maykut, P., and Morehouse, P., 1997. *Beginning Qualitative Research: A Philosophic and Practical Guide*. The Falmer Press Teachers' Library. The Falmer Press: UK.

Mazur, E., 1997. *Understanding or memorization: Are we teaching the right thing?* Proc Resnic Conference, Wiley, New York, pp. 113-124.

Mc Coy, D. J., and Ketterlin-Geller, L. R., 2004. Rethinking Instructional Delivery for Diverse Student Populations: *Serving All Learners with Concept-Based Instruction*. *Intervention in School and Clinic*. Vol. 40, No 2, NOVEMBER 2004 (PP. 88–95)

McNeil, J. D., 1990. *Curriculum: A comprehensive introduction (4<sup>th</sup> Ed. )*. Glenview, ILL: Scott, Foresman and Company.

Mc Niff, J., and Whitehead, J., 1992. *Action Research Principles and Practice*. London: Routledge.

Mercer, J., 2007. The challenges of insider research in educational institutions: wielding a double-edged sword and resolving delicate dilemmas. *Oxford Review of Education*, 33(1), 1-17.

Merriam, S. B., 1988. *Case Study Research in Education*. San Francisco: Jossey-Bass Inc. Publishers.

Miles, M. B., and Huberman, A. M., 1994. *Qualitative data analysis : An expanded source book (2<sup>nd</sup> ed. )*. Thousand Oaks, CA: Sage.

- Milligan, A., & Wood, B., 2010. Conceptual understanding as transition points: making sense of a complex social world, *Journal of Curriculum Studies*, 42:4, 487- 501.
- Millikan., R. 2001. Transition and continuity between IB programmes. *IB Research Notes*, 1 (1), 3–7.
- Morris, T. and Wood, S., 1991. "Testing the survey method: continuity and change in British industrial relations". *Work Employment and Society*, Vol. 5 No. 2, pp. 259-82.
- Morrison, K. R. B., 2003. Complexity theory and curriculum reforms in Hong Kong. *Pedagogy, culture and Society*, 11(2), 279-302.
- Newby, P., 2010. *Research Methods for Education*. Pearson Education Limited. England.
- O'Leary, Z., 2010. *The Essential Guide to Doing Your Research Project*. London, SAGE Publications Ltd.
- Onwuegbuzie, A. J., & Leech, N. L., 2005a, March. Generalization practices in qualitative research: Trends in the literature. Paper presented at the annual meeting of the *Eastern Educational Research Association*, Sarasota, FL.
- Onwuegbuzie, A. J., & Leech, N. L., 2005b. Taking the "Q" out of research: Teaching research methodology courses without the divide between quantitative and qualitative paradigms. *Quality & Quantity: International Journal of Methodology*, 39, 267-296.
- Oppenheim, A.N., 1992. *Questionnaire Design, Interviewing and Attitude Measurement*. London: Continuum.
- Oppenheim, A. N., 2001. *Questionnaire Design, Interviewing and Attitude Measurement* (New Ed.) Continuum : London.
- Opie, C., 2007. *Doing Educational Research*. Sage: London, Los Angeles.
- Ornstein A.C. & Hunkins, F.P., 2009. *Curriculum foundations, principles and issues*. (5th ed). Boston: Allyn and Bacon.
- Pacheco, A, J., 2012. Curriculum Studies: what is the field today? *Journal of the American Association for the Advancement of Curriculum Studies*. University of Minho.
- Parkhe, A., 1993. 'Messy' research, methodological predispositions and theory development in international joint ventures, *Academy of Management Review*, Vol. 18 No. 2, pp. 227-68.
- Patton. M. Q., 1990. *Qualitative Evaluation and Research Methods*(2<sup>nd</sup> ed.). Newbury

Park, CA: Sage.

Patton, M.Q., 2002. *Qualitative Evaluation and Research Methods*, 3rd ed., Sage, Newbury Park, CA.

Payne, G and Payne, J., 2004. *Key Concepts in Social Research*. Sage, London.

Pearce, Richard. 2013. (ed). *International Education and Schools: Moving beyond the First 40 Years*. Bloomsbury Publishing. London:

Perry, C., 1998. "Processes of a case study methodology for postgraduate research in marketing", *European Journal of Marketing*, Vol. 32 Nos 9/10, pp. 785-802.

Peterson, A.D.C., 1987. *Schools across Frontiers: The Story of the International Baccalaureate and the United World Colleges*. La Salle, IL: Open Court.

Pinar, W. F., 1975a. *Curriculum theorizing: The reconceptualists*. Berkeley, CA: McCutchen.

Pinar, W. F., 1975b. Notes on the curriculum field 1978. *Educational Researcher*, 7(8). 5-12.

Pinar, W. F., 1979. What is Reconceptualization? *Journal of curriculum Theorizing*, 1(1), 93-104.

Pinar, W. F., Reynolds, W. M., Slattery, P., & Taubman, P.M., 1995. *Understanding curriculum*. New York: Lnag.

Pinar, W.F., 1999a. Not burdens-breakthroughs. *Curriculum Inquiry*, 29, 365-367.

Pinar, W.F., 1999b. The reconceptualization of curriculum studies. In W. F. Pinar (ed.), *Contemporary curriculum discourses: Twenty years of JCT*. New York, NY: Peter Lang, 483-497.

Pinar, W. F., 2006. *The Synoptic Text today and Other Essays: Curriculum Development after Reconceptualization*. New York: Peter Lang.

Pinar, W. F., 2008. *Curriculum Theory since 1950, Crisis, Reconceptualization, Internationalization*. In M. Connely, H, Fang & J. Phillion, J. (Eds.), *The Sage Handbook of Curriculum and Instruction*. (491-513). Los Angeles: Sage

Platt, J., 1992a. "Case study' in American methodological thoughts", *Current Sociology*, Vol. 40,pp. 17-44.

Platt, J., 1992b. "Cases of cases . . . of cases", in Ragin, C.C. and Becker, H.S. (Eds), *What is a Case? Exploring the Foundations of Social Inquiry*, Cambridge University Press, Cambridge, pp. 21-52.

- Pollock, D. C.; Van Reken, R. E., 1999. *Third Culture Kid experience: growing up among worlds*. Yarmouth, Maine: Intercultural press Inc.
- Portelli, J.P., 1987. Perspectives and imperatives on defining curriculum. *Journal of Curriculum and Supervision*, 2 (4) , 354-367.
- Ponterotto, J.G., 2005. Qualitative Research in Counseling Psychology: A Primer on Research Paradigms and Philosophy of Science. *Journal of Counseling Psychology*, 52(2), 126—136.
- Posner, G. F., 1998. Models of curriculum planning. In L. E. Beyer & M. W. Apple (Eds.), *The curriculum* (pp. 267-283). Albany NY: SUNY Press.
- Prideaux, D., 1993. School-based curriculum development: partial, paradoxical and piecemeal. *Journal of curriculum studies*, 25 (2), 169-178.
- Punch, K.F., 1998. *Introduction to Social Research. Quantitative and Qualitative Approaches*. Sage Publications, London
- Punch, K.F., 2005. *Introduction to Social Research*, 2nd ed., Sage, London.
- Pungur, L., and Buck, G. H., (nd). *A pragmatic approach to curriculum*.
- Riege, A.M., 2003. "Validity and reliability tests in case study research". *Qualitative Market Research: An International Journal*, Vol. 6 No. 2, pp. 75-86.
- Robson, C., 2002. *Real World Research: A Resource for Social Scientists and Practitioner Researchers*, 2nd ed., Blackwell, London.
- Robson, C., 2011. *Real World Research: A resource for Users of Social Research Methods in Applied Settings*. (3<sup>rd</sup> ed). John Wiley and Sons Limited Publications. Sussex, UK.
- Ross, A., 2000. *Curriculum construction and Critique*. Falmer Press, London.
- Rooney, P., 2005. Researching from the inside - does it compromise validity? Available at: <http://level3.dit.ie/html/issue3/rooney/rooney.pdf>. Accessed on: December 15th, 2012.
- Sadovnik, A. R., 1991. Basil Bernstein's Theory of Pedagogic Practice: A structuralist approach, *Sociology of Education*, 64:1, 48–63
- Sadovnik, A. R., 2001. Basil Bernstein (1924-2000): sociologist, mentor and friend. In P. Aggleton, J. Brannen, A. Brown, L. Chisholm, J. Mace & S. Power (Eds.), *A Tribute to Basil Bernstein: 1924-2000*. London: Institute of Education.

- Saldana, J., 2007. *The Coding Manual for Qualitative Researchers*. London: SAGE.
- Sapsford, R. and V. Jupp., 1998. *Data Collection and Analysis*. London, SAGE Publications Ltd.
- Scott, D., 2008. *Critical Essays on Major Curriculum Theorists*. Routledge: London and New York.
- Schon, D., 1991. *The reflective practitioner*. San Francisco: Jossey Bass.
- Shavelson, Richard J., and Lisa Towne (eds.), 2002. *Scientific Research In Education*, National Academy Press, Washington, DC.
- Shoham, E., 1995. Teacher autonomy in school-based curricula in Israel: its significance for teacher education. *Westminster studies in education*, 18, 35-45.
- Singh, P., 2002. Pedagogising knowledge: Bernstein's theory of the pedagogic device. *British Journal of Sociology of Education*, 23: 4, 571-582.
- Skilbeck, M., 1976. School-based curriculum development', in Open University Course 203, Unit 26. Milton Keynes: Open University Press.
- Skilbeck, M. (1984) *School-based curriculum development*, London, Harper and Row.
- Sklair, L., 2002. *Globalization: Capitalism and its Alternatives*. Oxford University Press:
- Slattery, P., 2006. *Curriculum Development in the Postmodern Era (2<sup>nd</sup> edn.)*. New York: Routledge.
- Smith, M. K., 1996, 2000. 'Curriculum theory and practice' *the encyclopedia of informal education*, Available at: [www.infed.org/biblio/b-curric.htm](http://www.infed.org/biblio/b-curric.htm) Accessed on: 2nd June, 2012.
- Soltis, J. F., 1978. *An introduction to the analysis of educational concepts*. Reading, MA: Addison-Wesley.
- Stake, R. E., 1994. "Case Studies," in Norman K Denzin and Yvonna S. Lincoln (eds.), *Handbook of Qualitative Research*, Sage Publications, Thousand Oaks, CA, 1994, pp. 236-247.
- Stake, R. E., 1995. *The Art of Case Study*. USA: Sage publications, Inc.
- Stake, R.E., 2000. "Case studies", in Denzin, N.K. and Lincoln, Y.S. (Eds), *Handbook of Qualitative Research*, Sage, Thousand Oaks, CA, pp. 435-54.

- Stenhouse, L., 1975. *An introduction to Curriculum Research and Development*, London : Heineman.
- Stobie, T. D., 2007. Coherence and consistency in international curricula: a study of the International Baccalaureate diploma and middle years programmes, in: M. Hayden., J. Levy and J. Thompson (eds). *The SAGE handbook of Research in International Education*. London, Sage: 140-151.
- Strauss, A.L., 1987. *Qualitative analysis for social scientists*. Cambridge, UK: Cambridge University Press.
- Strauss, A. L & Corbin, J., 1990. *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park CA: Sage.
- Taba, H., 1962. *Curriculum Development : Theory and practice*, New York : Harcourt Brace and World.
- Taba, H., 1966. *Teaching strategies and cognitive functioning in elementary school children (cooperative research project)*. Washington, DC: Office of Education, U.S. Department of Health, Education, and Welfare.
- Tarc, P., 2009. What is 'International; in the international Baccalaureate? : Three structuring tensions of the early years (1962-1973). *Journal of Research in International Education*. 8: 235.
- Tashakkori, A. and Teddlie, C., 1998. Mixed Methodology: Combining Qualitative and Quantitative Approaches. *Applied Social Research Methods Series*. Vol. 46 Sage Publications: Thousand Oaks.
- Tashakkori, A. and Creswell, J. W., 2007. Exploring the nature of research questions in mixed methods research. *Journal of Mixed Methods Research*, 1 (3), 207-11.
- Teddlie, C. and Tashakkori, A., 2009. A general typology of research design featuring mixed methods. *Research in the Schools*, 13 (1), 12-28.
- Tedlock, B., 2000. Ethnography and ethnographic representation. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (2nd ed., pp. 455-486). Thousand Oaks, CA: Sage.
- Terwilliger, R.I., 1972. International Schools-cultural crossroads, *The Educational Forum* 36, 3, pp.359-363.
- Teijlingen van, E., Hundley, V., 2001. Social Research Update. *Department of Sociology*. University of Surrey. UK.

- Thompson, J. J., 1998. 'Towards a model of international education', in M.C. Hayden and J.J. Thompson (eds) *International Education: Principles and Practice*, pp. 276-90. London: Kogan Page.
- Tolich, M., 2004. Internal confidentiality: When confidentiality assurances fail relational informants. *Qualitative Sociology* 27,no.1:101-06.
- Trowler, P., 2011. Researching your own institution: Higher Education. *British Educational Research Association* online resource. Available at: [http://www.bera.ac.uk/files/2011/06/researching\\_your\\_own\\_institution\\_higher\\_education.pdf](http://www.bera.ac.uk/files/2011/06/researching_your_own_institution_higher_education.pdf). Accessed on: 10th June 2012.
- Twyman, T., Ketterlin-Geller, R., L., McCoy, D, J., and Tindal, G., 2003. Effects of Concept-Based Instruction on an English Language Learner in a Rural School: A Descriptive Case Study. *Bilingual Research Journal*, 27: 2 Summer 2003.
- Tyler, R.W., 1949. *Basic principles of curriculum and instruction*. Chicago, IL: The University of Chicago Press.
- Unluer. S., 2012. Being an Insider Researcher while conducting Case Study Research. The Qualitative Report 2012 Volume 17, Article 58, 1-14. Available at: <http://www.nova.edu/ssss/QR/QR17/unluer.pdf>. Accessed on: January 4th, 2013.
- Walford, G., 1994. Classification and framing in English public boarding schools, In P. Atkinson,. B. Davies & S. Delamont (Eds.), *Discourse and Reproduction*. New Jersey: Hampton Press.
- Wallace, M. and Poulson, L., 2003. *Learning to Read Critically in Educational Leadership and Management*. London: Sage.
- Wesley, J.J., Leach, M.P. and Lui, A.H., 1999. "Theory testing using case studies in business-to-business research", *Industrial Marketing Management*, Vol. 28, pp. 201-13.
- Westerberg, R. T., 2009. Becoming a Great High School: 6 Strategies and 1 Attitude That Makes a Difference. *Association for Supervision & Curriculum Development*, Alexandria, Virginia, United States of America.
- Wiggins, G. &McTighe, J., 1999.*Understanding by design*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Wiggins, G. and McTighe, L., 2005. *Understanding by Design*, 2<sup>nd</sup> ed. (Alexandria, VA: Association for Supervision and Curriculum Development).
- Wilson, M., 1996. Asking Questions : In: Sapsford, R. and Jupp, V. Eds. *Data Collection and Analysis*, pp 138-151. London: Open University Press.

- Yin, R. K., 1989. Case study research: Design and methods. Applied Social Research Series, Vol. 5. London: Sage.
- Yin, R. K., 1994. *Case Study Research- Design and Methods*. 2<sup>nd</sup> ed. Sage, Newbury Park. CA.
- Yin, R. K., 2003. *Case Study Research- Design and Methods*. 5<sup>th</sup> ed. Thousand Oaks,, London,, New Delhi: Sage Publications.
- Yin, Robert., 2004. Case Study Methods. *COSMOS Corporation*. Unpublished.
- Yin, R. K., 2005. Introduction. In R. K. Yin (Ed.), *Introducing the world of education: A case study reader* (pp. xiii-xxii). Thousand Oaks, CA: Sage.
- Yin, R. K., 2006. Mixed methods research: are the methods genuinely integrated or merely parallel? *Research in Schoos*, 13 (1), 41-7.
- Yin, Robert. K., 2009. *Case Study Research: Design and Methods* (4<sup>th</sup> edition). Thousand Oaks, California: Sage Publications, Inc.
- Zipf, R., Harreveld, B., Harrison, A., 2011. Risky Business: the ethical dilemmas of qualitative methodology in practice. *AARE Annual Conference Proceedings*. Paper code: 00331. Available at : <http://www.aare.edu.au/data/publications/2011/aarefinal00331.pdf>. Accessed on: December 10th, 2012.



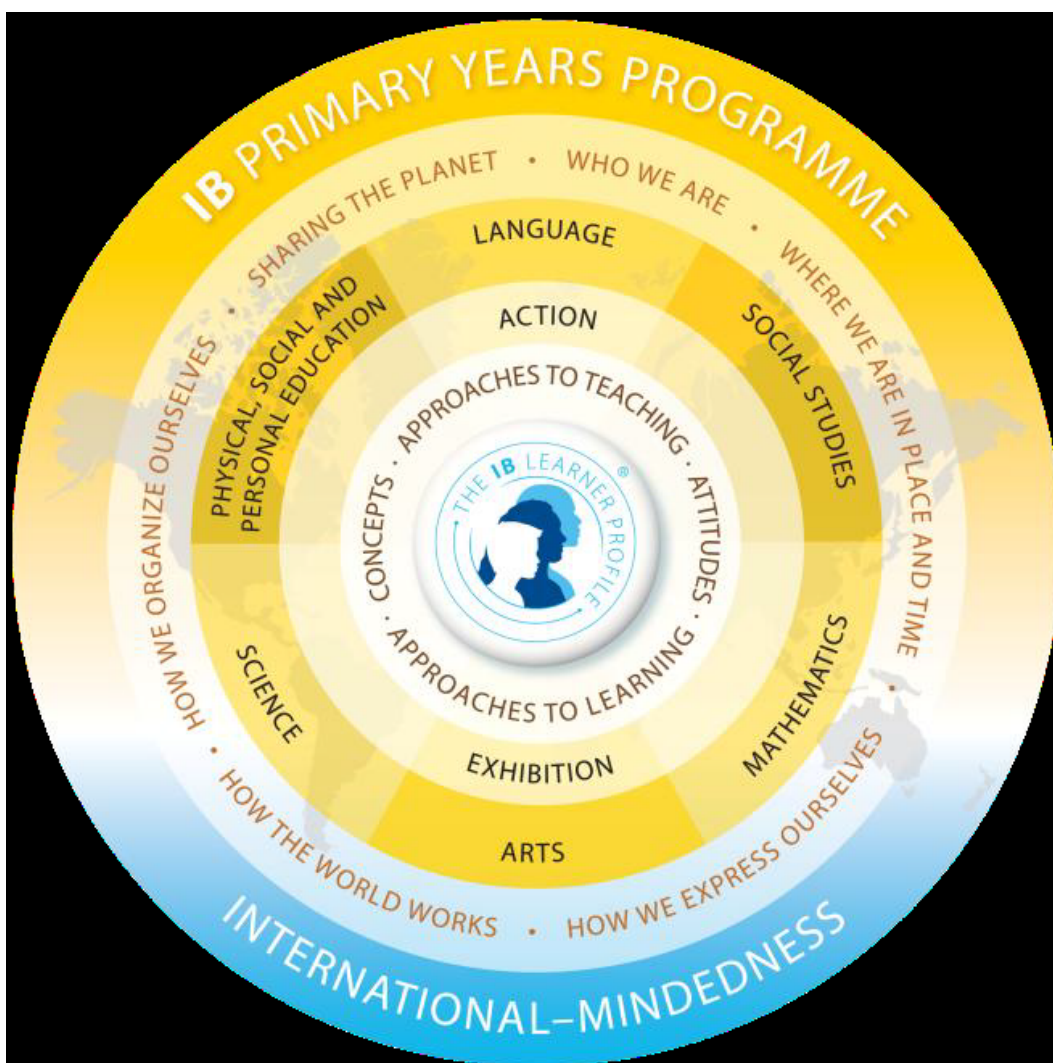
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## Appendix 1: IB Program Models- New and Previous

### IB Primary Years Programme Model



## IB Middle Years Programme Model

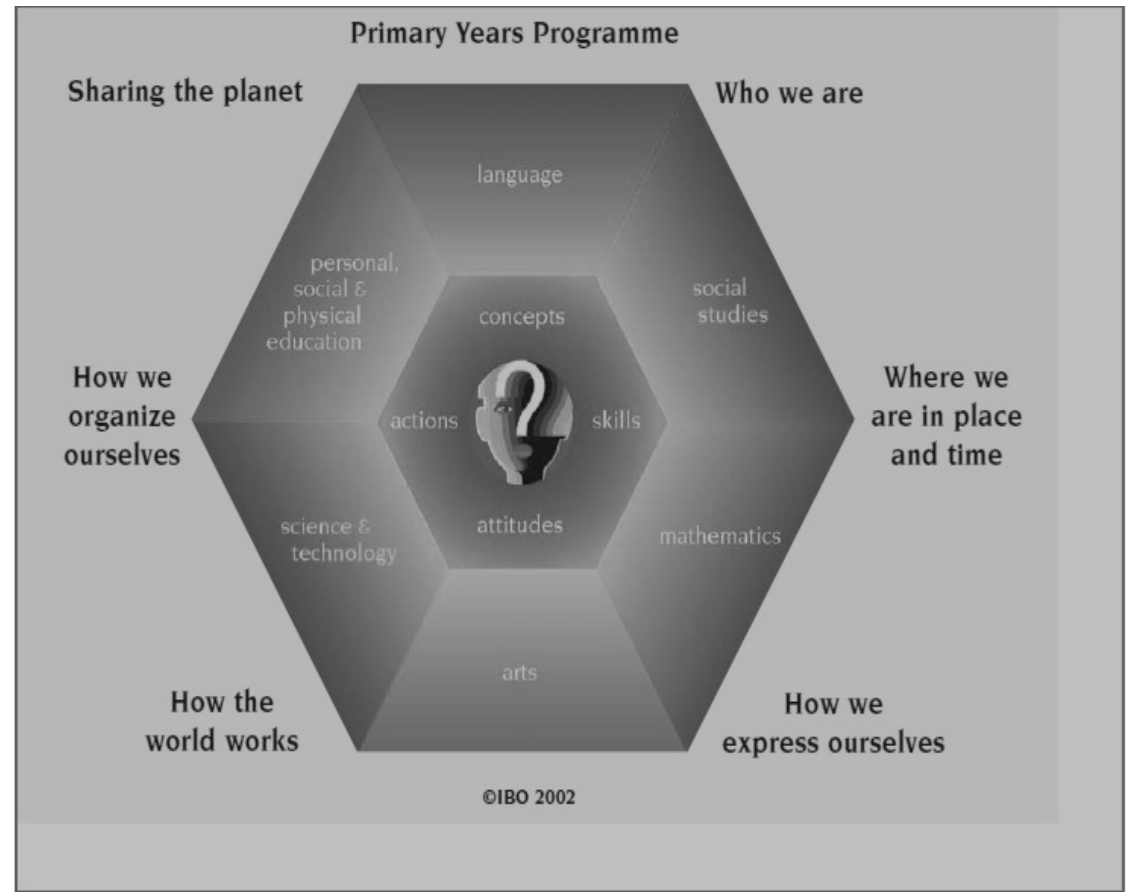


## IB Diploma Programme Model

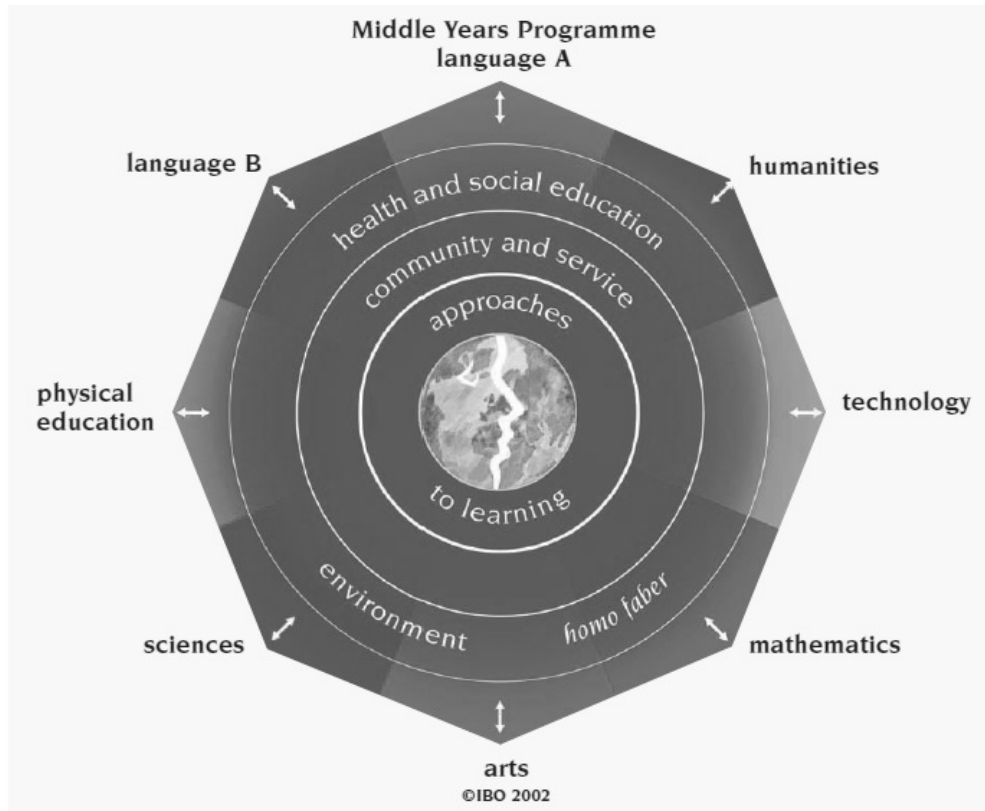


## The Previous IB Programme Models

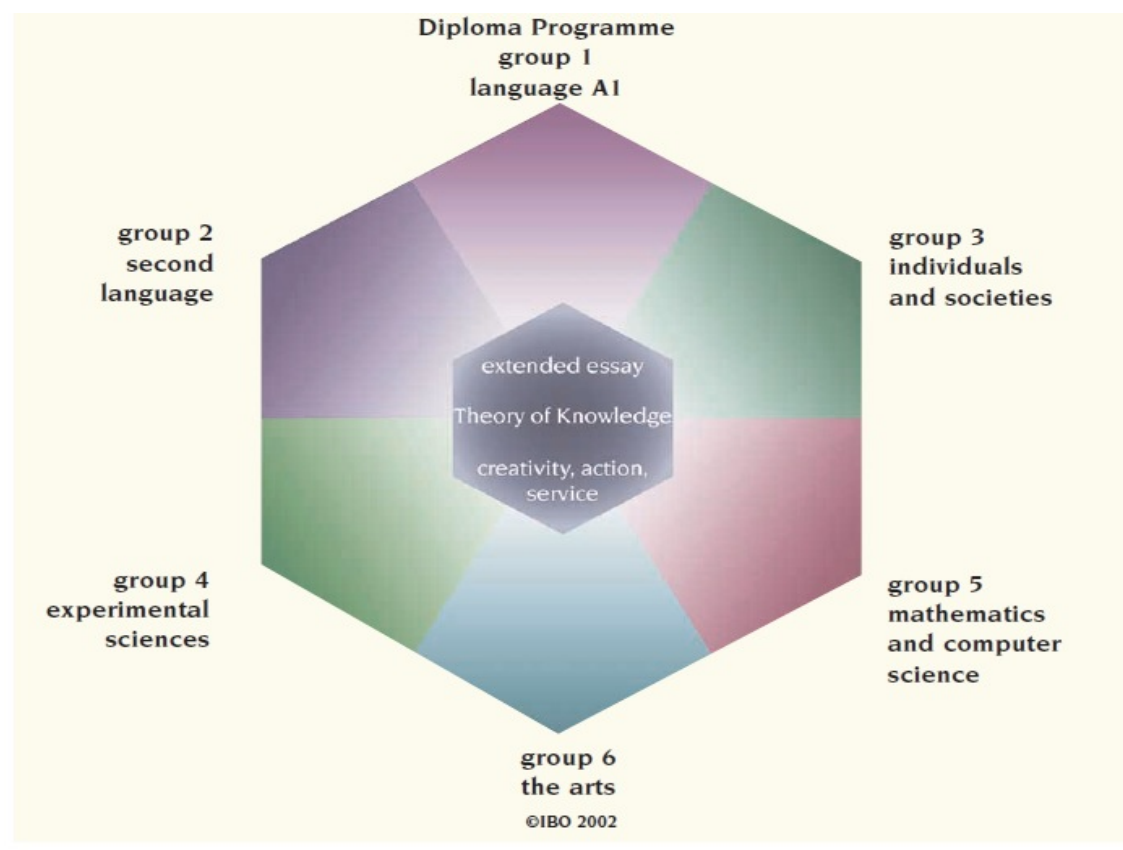
### IB Primary Years Programme Model



## IB Middle Years Programme Model



## IB Diploma Programme Model





## **Appendix 2: The IB PYP Trans-disciplinary themes**

The following six transdisciplinary themes have provided teachers a framework to develop programmes of inquiry that seek to foster in-depth investigations into important ideas:

- Who we are
- Where we are in place and time
- How we express ourselves
- How the world works
- How we organize ourselves
- Sharing the Planet.

### **Appendix 3: IB Learner Profile**

<b>ATTRIBUTES</b>	<b>STANDARD</b>
<b>Inquirer</b>	They develop their curiosity. They acquire the skills necessary to conduct inquiry and research and show independence in learning. They actively enjoy learning and this love of learning will be sustained throughout their lives.
<b>Knowledgeable</b>	They explore concepts, ideas and issues that have local and global significance. In doing so, they acquire in-depth knowledge and develop understanding across a broad and balanced range of disciplines.
<b>Thinkers</b>	They exercise initiative in applying thinking skills, critically and creatively, to recognize and approach complex problems, and make reasoned, ethical decisions.
<b>Communicators</b>	They understand and express ideas and information confidently and creatively in more than one language and in a variety of modes of communication. They work effectively and willingly in collaboration with others.
<b>Principled</b>	They act with integrity and honesty, with a strong sense of fairness, justice and respect for the dignity of individuals, groups and communities. They take responsibility for their own actions and the consequences that accompany them.
<b>Open-Minded</b>	They understand and appreciate their own cultures and personal histories, and are open to the perspectives, values and traditions of other individuals and communities. They are accustomed to seeking and evaluating a range of points of view, and are willing to grow from the experience.
<b>Caring</b>	They show empathy, compassion and respect towards the needs and feelings of others. They have a personal commitment to service, and act to make a positive difference to the lives of others and to the environment.
<b>Risk-Takers</b>	They approach unfamiliar situations and uncertainty with courage and forethought, and have the independence of spirit to explore new roles, ideas and strategies. They are brave and articulate in defending their beliefs.
<b>Balanced</b>	They understand the importance of intellectual, physical and emotional balance to achieve personal well-being for themselves and others.
<b>Reflective</b>	They give thoughtful consideration to their own learning and experience. They are able to assess and understand their strengths and limitations in order to support their learning and personal development.

## **Appendix 4: Journal entries**

### **Journal entry # 1: Interview dilemmas**

The following are some interview situations that posed considerable challenges because participants were not able to distinguish between my role as a researcher and as a colleague.

“ You know me Sudha...I take these things (Conceptual Curriculum) very seriously and do the right thing...and of course you can correct me if my answer is wrong..”

“ Well...I can talk about XXX because she has left the school now...and as a curriculum leader, I am not sure she actually understood how the actual philosophy of the Conceptual Curriculum works...”

#### **Possible concerns:**

- Danger of becoming a sounding board..
- Don't want to get into irrelevant details
- Funnel questions?
- How do I gear participants back to focus on the interview?
- Will participants withdraw totally if I try to gear them back?

“Sudha, you have been out there in the trenches with us when we were initially struggling with this whole idea of a concept-based curriculum philosophy...and I am glad you have taken yourself and all of us on board with such enthusiasm, and more importantly, I know you will understand our feelings and what we are saying much more than an outsider researcher...” Possible concerns:

**Possible concerns I have from the above:**

- Will much go unsaid as participant feel I know the “answer”?
- Reinforcement before interviews?
- Reiteration where necessary?
- Maybe structured interviews will eliminate all of the above threats
- ...so that respondents will only answer to the specific questions..?

**Possible solutions to overcome the above:**

Remind participants that:

- There are no right or wrong answer when collecting data
- Participants should not expect me to “correct” the responses
- Participants should be able to differentiate between my two roles...
- Reiterate the duality of my roles and
- ...the importance of distinguishing between them.

**Journal Entry # 2: Interview location**

I feared that if some discomfort is caused to participants early in the study, participants may totally withdraw from participating and the word will spread all too quickly and my inquiry will suffer.

**Possible Solution to overcome the above:**

- Find a quite place, perhaps early morning interviews before too many staff arrive?
- Certainly not during the work day...but after school is also an option, but then again school is busy at those times with tutoring and after school activities...?

I decided on conducting the interviews in a private place so as to ensure that the interviews were not interrupted and the participants were not put to any discomfort in having to answer other colleague questions on “what is going on...”

### **Journal Entry # 3: Recording interviews**

Given that a voice-recorder is often considered an “indispensable tool for capturing data” (see Patton, 1990, p.348) and the possibility it would offer to capture the exact words of the respondents, I was intending to use a recording device to gather data for the semi-structured interviews. I also had some experience in collecting data by using a voice-recorder for one of my previous EdD assignment. Though researchers such as Lincoln and Guba (1985, p.241) do not recommend this approach to collect data due to its vulnerability of technical failure, I had found collecting of data for my one of my EdD assignment this way to be quite useful since it helped me play the responses as many times as I wanted to, so as to ensure that I was deriving the true meaning from the response while coding.

However, much to my disappointment, participants requested that interview data be recorded by taking notes versus being recorded on tape. This request from participants had to be complied with in order to make participants comfortable, though it made the data collection take much longer time than anticipated.

### **Journal Entry # 4: Research Ethics not just ticking the box!**

**Situation:** Once while using the ladies restroom, I overheard two teachers discussing how frustrating it was to having this X person as their Curriculum Leader and his unreasonable demands on developing the Conceptual curriculum. I was unable to see them (although being an insider, I could recognize their voices and knew who they were) but the conversation seemed to be an “interesting piece of information’ for my research. I however had to

resist my temptation to “use” this for my study, as I would not be able to justify this as “data collection”. Moreover, regardless of how well I would manage to mask their identities, from what was exchanged in the conversation, it would easily be able to recognize who had said what, particularly when drafts of the report were made available for review to the respondents. Thus, this situation called for to adhere to “rigor” (BERA 2011) in research.

I also ensured that I adhered to the “three Rs”: “Responsibility, Rigor and Respect”, right through the research according to the guidelines recommended in the “Research Ethics Guidelines for EdD students” (University of Bath, Post Graduate Skills Record (on-line), as set by BERA, 2011):

“Respect: Stick to the law. Treat all subjects including people, animals, plants or the environment as humanely as possible”.

Rigor: Recall that research is academically based systematic enquiry & that you must act with sufficient skill and care to justify the claims you make”

Responsibility: You must communicate your results honestly and accurately. You should ALWAYS be aware that your work will have an impact on society”

#### **Journal Entry #5: Personal Motivation for my study:**

Being enrolled in the EdD program as a part-time student and working full time in an IB World school, which has potentially become my research site for all of my EdD assignments as well as this study, my research inquiry. For my first assignment “*Educational Research: philosophy and practice*”, I explored the challenges I encountered in transitioning from a national system of education to an international school, and how through “action research” (Mc Niff and Whitehead 1992, pp 22) I overcame the challenges. For my second assignment on “*Education Policy: theory and practice*”, I explored the domination of anglo-saxon teachers in international education in the UAE

(drawing on the school where I worked as a typical example) and its implications in the light of the receding global economy towards Asia. For my third assignment on *“Educational Management, Leadership and Administration”*, I explored distributive leadership practice (Gronn, 2000) through the leadership model as practiced in the IB where I was employed. And for my fourth assignment on *“International Education: philosophy and practice”*, I explored the issue of transition challenges of “Third Culture Kids” (Pollock and Van Reken, 1999, p 20) in international schools.

Each of the above topics that I explored through my assignments has helped me become a better practitioner. Also, as noted earlier, given the time constraints of having to juggle a full-time job and part-time doctoral studies, it is no surprise that I drew these topics from my work site. I also believe that for students like myself who self-fund their doctoral studies, the cost factor of conducting extensive research in a different research site adds another level of complexity, which is why students to look into their work sites to identify topics worth pursuing in their study. Thus while trying to identify a suitable topic for my research inquiry, I naturally turned to my work site to draw upon a research topic worth pursuing.

#### **Journal entry # 6: Action Research or Case Study?**

In terms of the research methodology, though the article from Labaree (2003) did not deter my interest in choosing a topic of study within my work site, I did disregard the option of doing this study as an “action research” project (Mc Niff and Whitehead 1992, p.22) as I believed that by doing so it would in fact turn out to be a “unrealistically optimistic personal success story” (Labaree, 2003, p. 14), of how I began my journey in teaching for conceptual understanding, the challenges I encountered in that journey (given my previous background in rote teaching and learning approaches), how I overcame the challenges and then to being certified and becoming a consultant for concept-based teaching! Though the reality is far from a success story (however that may be defined) and I

continue to encounter challenges and raise questions about this approach to curriculum and instruction, to a first time reader I feared this will look more like a personal “success story” narrative (Labaree, 2003, p.14).

### **Journal entry # 7: Notes on methodology and epistemology**

I kept these notes for ready reference purposes:

Cohen et al (2011, p.31) notes that the positivist and interpretivist approach to research strives to understand phenomena through two different lenses:

“Positivism strives for objectivity, measurability, predictability, controllability, patterning, the construction of laws and rules of behavior, and the ascription of causality; the interpretive paradigms strive to understand and interpret the world in terms of its actors. In the former, observed phenomena are important; in the latter, meanings and interpretations are paramount...thus the positivists view the world as “orderly, controllable, predictable, and standardized...which can be studied straightforwardly through the empirical means of the scientific method”, while the post-positivist challenge such a view of the world and view the world as “conjectural, falsifiable, challengeable, and changing” .

Opie (2007, pp. 21-22) explains how ontology and epistemology influence the choice of methodology and methods with the following example:

“In terms of research design and choice of procedures, if the assumption is that knowledge is real, objective, and out there in the world to be captured, researchers can observe, measure and quantify it. However, if it is assumed to be experiential, personal and subjective, they will have to ask questions of the people involved. These differences are much the same as those identified with regard to ontological assumptions. Research which proceeds from the epistemological assumption that knowledge is experiential and subjective will usually place considerable emphasis on the accounts given by informants-



either verbally in interviews or written and in response to questionnaires.”

Each of the above paradigms demand different types of data, and in this regard Newby (2010, p.142, emphasis in original) points out that two sources of data give us access to different types of information: qualitative and quantitative data:

- Qualitative data are often described as referring to people’s feelings and thoughts (for example the reasons students give for their choice of institution). These are things that are valid only in terms of an individual’s representation of reality.
- Quantitative data have a numerical value, for example the number of students who apply to an institution or the percentage of students from an area who go on to higher education. The implication of this is that quantitative data exist in a common world, are collectively understood and can be externally verified.

#### **JOURNAL ENTRY # 8: FOUR DOMAINS OF MIXED METHODS**

Greene (2008, pp. 8-10) organized mixed methods research into four domains:

1. Philosophical assumptions and stances (assumptions about ontology – the nature of the world and epistemology – how we understand and research the world; and the warrants we use);
2. Enquiry logics (e.g purposes and research questions, designs, methodologies or research, sampling, data collection and analysis, reporting and writing)
3. Guidelines for practice (how to mix methods in empirical research and in the study of phenomena);

4. Sociopolitical commitment (what and whose interests, purposes and political stances are being served).

### **Appendix 5: Copy of e-mails sent to seek permission for research**

Copy of e-mail send to director and secondary Principal of school seeking permission to do research

To

The Director,

GAIS School

Dubai, UAE.

From,

Ms. Sudha Govindswamy

Part time EdD Student (Student Number: 079053460)

University of Bath, UK.

Subject: Request to conduct a Case Study research at your school.

Date: 24<sup>th</sup> October, 2012

Dear Dr. Sir,

Further to our initial discussions (May 2012), I, Ms. Sudha Govindswamy, part-time EdD student at the University of Bath UK, wish to seek your permission to conduct a Case Study research at your school. I understand your school is a IB World School that offers the IB PYP and the IB DP and has a conceptually based model of curriculum developed by the school to bridge the two programs. In this research inquiry I wish to explore how a non-IB curriculum bridges the IB curriculum in philosophy and practice. In this context, I intend to look at your school as a case study. (Proposal attached).

At this stage I am seeking permission to access curriculum documents of the school that may help support/validate my research aim and purposes as well as helping me understand the model of curriculum developed by your school. Data collection instruments and methods have not been finalized at this stage and I shall share the same with you at the appropriate time. I shall at all times ensure I adhere to ethical guidelines of research and maintain utmost care and caution in terms of maintaining confidentiality of research participants. Eventually I hope to share the findings with you and your staff.

Many thanks for your cooperation and support.

Kind regards,

Ms. Sudha Govindswamy (Sunder). 24/10/2012

**Appendix 5 (contd...)**

Copy of e-mail response from the Director for research approval

Dear Sudha,

With this note I want to confirm that GAIS has no objection to your research project which includes a case study of the GAIS Conceptual Curriculum. I wish you success with this important undertaking and look forward to seeing some of your findings as your work progresses.

Best regards,

XXXX

## **Appendix 6: Why not the MYP?**

### **Interview Question:**

What were the reasons for GAIS deciding not to adopt the IB MYP program in spite of adopting the IB PYP and the IB DP?

### **Interview Respondent:**

Current Secondary Principal: Chosen because she has served in the school since 2006 and is also a key person to initiate and drive the Conceptual Curriculum.

### **Interview response : Secondary Principal:**

*“It was a very positive and energetic spirit that guided the whole initiative. Eventually however, the practical difficulties such as the lack of time, proper training and lack of staff expertise all added up to the tension and the first year saw an exodus of teachers from the school...there were also considerable issues of staffing, and time-tabling in relation to the everyday life of the school. The same teachers were teaching the middle school programs as well as the IB DP. Finding sufficient time for teachers to engage continually in collaborative planning as required in the MYP program was seen as a practical difficulty given that the essential core of the MYP program requires much of such collaborative planning. Though collaborative planning and allocated time to foster curriculum discussions and development were also intended for the conceptual curriculum, the demands of the MYP program seemed far too heavier...”* (Interview notes, dated: April 15<sup>th</sup>, 2013)

**(Appendix 6 contd...)**

**Questionnaire to the current secondary school Principal and  
response : Why not the MYP?**

Dear Madam,

The purpose of this questionnaire is to gather data for my doctoral dissertation. I am exploring how teachers perceive their role in curriculum development in the school, particularly in relation to the conceptual curriculum program the school has developed in order to bridge the IB Primary Years Program (IB PYP) and the IB Diploma Program (IB DP).

I understand that in your role as the Secondary Principal of the school, you have been highly instrumental in launching, supporting and nurturing the development of the conceptually based program model the school has adopted to bridge the IB PYP and the IB DP.

Why the school has not adopted the IB Middle Years Program (IB MYP) is one of the key questions that leads further into my main research question.

Your input is valuable and much appreciated. I am happy to share the findings of this study with you when the study is complete.

Many thanks,

Sudha Govindswamy Sunder

Contact: [ssunder@GAIEdubai.ae](mailto:ssunder@GAIEdubai.ae)

Date: 23<sup>rd</sup> May 2013.

1. What are the factors you believe that influenced the decision of the school in not adopting the IB MYP?

The senior management and ESOL board members felt that the MYP was a difficult program to manage and develop. There are restrictions and requirements which other schools have expressed concern about. It is generally felt that the MYP does not have enough structure and does not really prepare students for the IBDP. While the philosophy and ideas behind the MYP are excellent, it was felt that we could create a curriculum that would bridge the PYP and DP and be specific and unique to GAIS.

2. What are the factors that influenced the decision of the school in adopting the conceptual curriculum to bridge the IB PYP and the IB DP? (in the sense why not some other curriculum model than the conceptual curriculum?)

The senior management and IBDP coordinator at the time felt that there was nothing already created that would completely meet the needs of our school so they decided to use current research and other curriculum as the founding structure for our curriculum.

At the time, the evidence from many educational research papers and studies indicated that conceptually-based programs engaged and motivated students into critical thinkers and discerning learners. The work of Dr Lynn Erikson and Jay McTighe and grant Wiggins' Understanding by Design was used extensively during the development phases.

3. As an experienced educator who has worked in other international schools, particularly in key leadership roles to deliver the MYP program, what would you describe as the major challenges and shortcomings of the IB MYP?

The MYP is particularly difficult to implement in a school that is already established with a curriculum. Integrating the Areas of Interaction,

meeting the requirements for integrated units and course requirements can mean extensive work and a shift in paradigms for some teachers. It requires a whole school approach and needs faculty buy-in.

4. The conceptual curriculum model as developed in the school has more of a 'discipline focus' compared to the IB PYP model of interdisciplinary focus. What was the reason behind this decision?

I don't know if this was a conscious decision or whether it came about via the manner in which the initial planning took part. Planning was done primarily by departments independently. Had there been a more collaborative approach to deciding concepts and central ideas there may have been a greater focus on interdisciplinary units.

5. How would you describe your role and experiences as an administrator in developing and delivering the conceptual curriculum?

Initially it was more of a guidance role such as giving examples and showing sample unit plans. There was a lot of confusion to begin with as to what a concept is and how to then narrow from the big picture to the content. There are still aspects of this now (6 years down the track) with new teachers. Teachers who have been here a while I believe have a good understanding of our philosophy. Now we are more at the phase of ensuring that what is on paper is evident in the classroom.

6. How would you describe teacher experiences in developing and delivering the conceptual curriculum?

This depends largely on their previous experiences and the types of educational systems teachers come from. Some still have the very traditional textbook based experience. Some teachers have a conceptual approach to teaching but may not know it. It is not a big leap for most teachers to grasp this concept but ensuring that it is implemented in the classroom takes planning.



For some subjects conceptual thinking and teaching is a natural approach, for some subjects it is more complicated such as in math or PE. Here teachers need to be more creative and need to think beyond 'content'.

7. Anything else that you may wish to add:

I believe that GAIS has come a long way in developing a conceptually-based curriculum. More needs to be done. It is a continuous process and curriculum development is a cyclical process. Curriculum should always be reviewed and updated.

## **Appendix 7 –Initial and follow-up e-mail to the former director**

### **Questionnaire and response: Why not the MYP?**

Dear Sir,

The purpose of this questionnaire is to gather data for my doctoral dissertation. I am exploring how teachers perceive their role in curriculum development in the school, particularly in relation to the conceptual curriculum program the school has developed in order to bridge the IB PYP and the IB DP programs.

I understand that in your previous role as the Director of the school, you have been highly instrumental in the shaping and initiating the conceptually based program model the school has adopted to bridge the IB PYP and the IB DP.

Why the school has not adopted the IB Middle Years Program (IB MYP) is one of the key questions that leads further into my main research question.

Your input is valuable and much appreciated. I am happy to share the findings of this study with you when the study is complete.

Sudha Govindswamy Sunder

Contact: [ssunder@GAISdubai.ae](mailto:ssunder@GAISdubai.ae)

1. What are the factors you believe that influenced the decision of the school in not adopting the IB MYP? The IBMYP has not enjoyed credible success in the context of being a superior preparation for students preparing for the IB Diploma Program. Those of us at GAIS with IBMYP experience, at the time of deliberations about how to bolster the preparation of students in grades 7-10, were far from convinced the IBMYP would provide the necessary conceptual understanding and meaning making skills and strategies required for students to be successful in the IB Diploma. Having read and reviewed the work of Lynn Erickson on conceptually-based learning the committee assembled at

GAIS to design and implement a new curriculum model set about using Erickson's work to design a curriculum framework. The model was progressively enhanced to include supporting materials and assessments aimed at ensuring all learning activities would oblige in depth analysis of concepts, big ideas and enduring understandings that would make connections in learning across disciplines and within disciplines meaningful, while making sure assessments were measuring demonstrated understanding in performance based contexts. It is more than coincidental that the IBMYP has turned to Lynn Erickson to assist in shaping the MYP to be more conceptual in design. Sadly it seems the MYP people responsible for making the changes needed have not understood Erickson's work well at all and as a result the new look IBMYP is now a more confusing hybrid of various influences in curriculum design that will ensure, students, teachers and parents will be more confused than ever about this needlessly complex program.

2. What are the factors that influenced the decision of the school in adopting the conceptual curriculum to bridge the IB PYP and the IB DP? (in the sense why not some other curriculum model than the conceptual curriculum?)

The XXX Superintendent was very interested in making sure the new curriculum adopted at GAIS would be superior to the IBMYP, as he was underwhelmed by this program as it has been reported to him by many XXX Heads with IBMYP experience and had made it clear this was not a program he wanted in XXX schools.

The design of the IBPYP lends itself very well to articulating with a conceptually-based curriculum design. The IBPYP obliges students to develop an understanding of big ideas through investigation and meaning making tasks and exercises that are aimed at deeper levels of

understanding. Performance based assessments are commonplace in the IBPYP.

Alternative curriculum offerings such as the IGCSE apply to grades 9 and 10 only. It was considered essential at GAIS to ensure there were four years of preparation in place for the IB Diploma program given that students at GAIS were typically lacking in higher order thinking skills, advanced investigation skills and strategies aimed at complex problem solving.

3. As an experienced educator who has lead various other international schools, particularly also in some instances the MYP program, what would you describe as the major challenges and shortcomings of the IB MYP? The IBMYP lacks the simplicity and elegance in design any effective curriculum model should have in place to be readily understood by students, teachers and parents. So much of the design, as in the case of the Areas of Interaction, is contrived rather than allowing for understanding to emerge naturally from well planned and executed learning activities that oblige higher levels of cognitive engagement. In the assessment domain there could not be more confusion created as in each subject area the criteria are different, the scores are different and there is no correlation to the subsequent 7 point assessment scale of the IB Diploma. The IBMYP in its new format is now a grander mess.

4. The conceptual curriculum model as developed in the school has more of a 'discipline focus' compared to the IB PYP model of interdisciplinary focus. What was the reason behind this decision? It is conceivable that in the implementation of the conceptually-based design over time there has been a more disciplinary focus but this is far from what was intended as the concepts provide explicit opportunities for links to be made within and among disciplines. It was expected the while

Historians were discussing relationships in the context of cross-cultural conflicts across borders, Mathematicians would be discussing relationships in the context of independent and dependent variables and Scientists would be discussing relationships in the periodic table.

5. How would you describe your role and experiences as an administrator in developing and delivering the conceptual curriculum? It was a privilege and pleasure to be one of a think tank team at GAIS designing and developing the conceptually-based curriculum model. I was just one of a team of professional educators sharing thoughts and ideas as we shaped a model consistent with Erickson's work and what we believed students in grades 7-10 would need to be able to accomplish and master to be ready for success in the IB Diploma program. We looked in detail at the cognitive demands of the IB Diploma program to inform our backwards by design curriculum model.

6. How would you describe teacher experiences in developing and delivering the conceptual curriculum? The most critical aspect of the implementation of the conceptually-based curriculum was the training of teachers to understand and appreciate the subtlety and nuances of this model. In this domain more needed to be done and more time was needed than was given for this critical phase. As a result the buy in from teachers was less than hoped for and in some instances there was confusion that was detrimental to progress. Attempts were made to band aid these problems but this did not yield anticipated results. At two other schools I have worked with to implement the same model there has been a much more successful implementation, especially at the American International School in XXX where they have in place in grades Pre-K to 10 the conceptually-based model that is working brilliantly. It is interesting to note that at this school participation in the full IB Diploma Program has risen from 30% to 80% since this preparation program was implemented with success rates well above world means.

7. Anything else that you may wish to add:

It is my belief that the conceptually-based curriculum model provides an easy to understand frame of reference for students, parents and teachers and provides a wealth of opportunities for students to develop understandings, strategies and skills that prepare them very well for the IB Diploma program. Lynn Erickson was at XXX recently presenting workshops on the conceptually-based curriculum model. Her suggestions and ideas for refinements were outstanding. It was very disappointing that nobody from GAIS attended this XXX sponsored event. Lynn Erickson was immensely impressed by what she saw in place at XXX and inspired more purposeful professional learning to make more of this model. She noted that the IBMYP was using her work to inform their curriculum design but she was less than optimistic about how this would eventually be interpreted by those responsible. From what I have read her pessimism was well founded.

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## **Appendix 8 - Teacher Interviews- “Why not the MYP?”**

### **Interview Question:**

What were the reasons for GAIS deciding not to adopt the IB MYP program in spite of adopting the IB PYP and the IB DP?

### **Interview Respondents:**

3 teachers who have served in the school since 2006, when the decision to not adopt the IB MYP had been made.

### **Interview Response # 1: teacher:**

*“The senior management and board members felt that the MYP was a difficult program to manage and develop. There are restrictions and requirements which other schools have expressed concerns about. It is generally felt that the MYP does not have enough structure and does not really prepare students for the rigorous exam oriented IBDP. While the philosophy and ideas behind the MYP are excellent, it was felt that we could create a curriculum that would bridge the PYP and DP and be specific and unique to Global American International School.”(Interview Response dated: April 20<sup>th</sup> 2013)*

### **Interview Response # 2 : teacher**

*“I came to this school from an MYP school and was not surprised at the decision of the school to drop the IB MYP...this program (IB MYP) confuses everyone who tries to work with it, especially students and parents who are the primary audience...thought I hear it is now likely to be reformed to soon include examinations, something that is believed to be the best preparation for the Diploma, in which 80% of the assessments are based on examinations... currently something as amorphous as the Personal Project though one of the strengths of the IBMYP as a preparation for the Extended Essay, has no benefit for*

*students who struggle with examinations...*”(Interview Response, dated: April 22<sup>nd</sup>, 2013).

**Interview Response # 3 : teacher**

(served as a member of the Curriculum Committee in 2007)

*“...why not the MYP? This is the question I have been asking all the while I have been here at GAIS! I think we are simply reinventing the wheel by not adopting the IB MYP...I am not saying this is the best bet in preparing students for the IB DP, but all the same it has to be far more closer than anything else available...after all, it is a part of the continuum of the IB programs...”*



## **Appendix 9 – Preliminary Interviews: Conceptual Curriculum**

### **Structured Interviews: Robson's (2011, pp. 281-284) five-part model was adopted:**

1. Introductions (introducing the interviewer, the purpose of the study, agreeing confidentiality and seeking permission to record the interview);
2. 'Warm-up' questions (straightforward, non-threatening questions to get the interview flowing);
3. Main body of the interview (questions covering the main aims of the study, including 'high risk' questions which might provoke the interviewee's withdrawal);
4. 'Cool-off' questions (lower risk, straightforward or reflective questions to draw the interview to a natural conclusion);
5. Closure (thanking the interviewee and saying goodbye) and also including the "sweeper question" (Drever, 2003, p.27) to give the interviewee an opportunity to express any other point that may occur to them before closure.

### **Interview Schedule:**

1. Introduction:

Introducing myself, the purpose of the study, agreeing confidentiality and seeking permission to record the interview. Also to read out aloud to participants: "You will now be talking to Sudha the researcher and not Sudha your colleague and you will kindly need to explain all that you are saying in detail as if you were talking to a stranger..."

- a. Grades you teach:
- b. Subjects/languages you teach:
- c. Your role in the school: (Teacher/Curriculum Leader)

2. 'Warm-up' questions (straightforward, non-threatening questions to get the interview flowing);
  - a. Number of years you have taught the grades 7-10 curriculum in this school".
  - b. When you teach the grades 7-10 program, how much influence do you have in the choice of what is taught to your students in the classroom?"
  - c. Do you keep the IB PYP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?" and;
  - d. Do you keep the IB DP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10
3. Main body of the interview (questions covering the main aims of the study, including 'high risk' questions which might provoke the interviewee's withdrawal. What does the "conceptual curriculum" mean to you/can you describe it".
  - a. The model of curriculum the school follows for grades 7-10 enables teachers to make the choice of which concepts and topics to include in teaching. What factors do you consider to decide which concepts and topics to adopt/discard for a particular grade level?"
  - b. What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?"
  - d. What do you think are the strengths of the conceptual curriculum created by the school?" and "What do you think are the weaknesses of the conceptual curriculum created by the school?"

4. Cool-off' questions (lower risk, straightforward or reflective questions to draw the interview to a natural conclusion);

If you were given a choice to choose between teaching a prescriptive curriculum and a curriculum framework such as the one in the current school which is more flexible what would you prefer? Why?

5. Closure (thanking the interviewee and saying goodbye) and also including the "sweeper question" (Drever, 2003, p.27) to give the interviewee an opportunity to express any other point that may occur to them before closure.

Do you wish to add anything more?"

### **Interview Responses : Respondent 1:**

1. Introductory questions:

- a. Grades you teach: 7-8 and 11 and 12
- b. Subjects/languages you teach: Social Studies
- c. Your role in the school: (Teacher/Curriculum Leader): Teacher and CL.

2. Warm-up' questions

a. Number of years you have taught the grades 7-10 curriculum in this school":

Answer: 6 years

b. When you teach the grades 7-10 program, how much influence do you have in the choice of what is taught to your students in the classroom?"

Answer: I do think I have a lot of choice, but also wonder if it is too much choice is a good thing afterall...

c. Do you keep the IB PYP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?” and;

Answer: yes...sort of...I have not taught the PYP but do understand and apply its principles in a broad way..not that we plan a unit after we have met with the PYP teachers or anything like that...but I do keep in mind that students coming from the PYP are more used to a hands-on approach versus everything being teacher directed...

d. Do you keep the IB DP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?

Answer: definitely! At the end of the day IB DP is the goal post...we cannot afford to lost sight of that. And we plan backwards from the IB DP...and in all reality what happens is that we as teachers focus more towards getting our 11 and 12th graders ready for the IB...at the end of the day IB DP is the only priority as it is an externally marked examination which clearly prescribes what needs to be covered. ”(Teacher and curriculum leader).

### 3. Main body of the interview

a. What does the “conceptual curriculum” mean to you/can you describe it”.

Answer: I would say student-centered, inquiry-based learning whenever possible as sometimes the teacher has to teach some information before getting into making it student-centered..

b. The model of curriculum the school follows for grades 7-10 enables teachers to make the choice of which concepts and topics to include in teaching. What factors do you consider to decide which concepts and topics to adopt/discard for a particular grade level?”

Answer: I don’t think there is a specific rubric we use to identify these concepts...we identify some common themes as a group and then come up

with concepts...if that makes sense...sometimes if we think it is too far-fetched for our students then we keep it for the next year level and so on...

c. What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?"

Answer: I totally enjoy the flexibility and freedom to experiment and try out new ideas and when teaching is not mandated by a single text book...it is great to get students to start thinking of how they can apply what they learn in the Science class to their Social Studies lessons and vice versa...having said that, I would say that though the conceptual curriculum requires us to teach beyond the facts and foster teaching for conceptual understanding, this effort has remained much within each of the disciplines as there is never enough time to plan collaborative units in the middle school...

d. What do you think are the strengths of the conceptual curriculum created by the school?" and "What do you think are the weaknesses of the conceptual curriculum created by the school?"

Answer: In terms of the strengths I would say it allows teachers to be creative and try out new ideas...and the weakness of this would be the same if over used- too much of anything is too bad isn't it..? at the end of the day there needs to be some level of consistency in what happens in different classrooms where the same subjects are being taught...and honestly I have absolutely no experience in writing curriculum...it is always this uneasy feeling of "am I doing this right..?"

#### 4. Cool-off questions

a. If you were given a choice to choose between teaching a prescriptive curriculum and a curriculum framework such as the one in the current school which is more flexible what would you prefer? Why?

Answer: Definitely a flexible framework...but again I sometimes miss being told by an expert that I am doing the right thing for my students and that I have taught them what is needed...I sometimes wonder if my 9th graders are equally well prepared as 9th grades in some other school in some other part of the world...

## 5. Closure

Do you wish to add anything more?

Answer: Good luck in your dissertation!

### **Respondent 2:**

#### 1. Introductory questions:

- a. Grades you teach: 8-12
- b. Subjects/languages you teach: English
- c. Your role in the school: (Teacher/Curriculum Leader):Teacher

#### 2. Warm-up' questions

- a. Number of years you have taught the grades 7-10 curriculum in this school":

Answer: 4 Years

- b. When you teach the grades 7-10 program, how much influence do you have in the choice of what is taught to your students in the classroom?"

Answer: I do have sufficient influence, though the concepts for our subject areas were identified the year before I arrived...so we just had to run with it for a couple of years...

- c. Do you keep the IB PYP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?"

Answer: No

d. Do you keep the IB DP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?

Answer: Definitely!

### 3. Main body of the interview

a. What does the “conceptual curriculum” mean to you/can you describe it”.

Answer: We have certain key concepts such as Relationships, Conflict, Emotion etc through which we view each of the piece of literature that students are expected to read...maybe like a “lens” through which we would then discuss for example Romeo and Juliet?

b. The model of curriculum the school follows for grades 7-10 enables teachers to make the choice of which concepts and topics to include in teaching. What factors do you consider to decide which concepts and topics to adopt/discard for a particular grade level?”

Answer: The concepts were identified before I came to this school..

c. What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?”

Answer: While I have no qualms about the quality of teaching happening in the school, I always worry about the repercussions of having to relocate my son back to the United States... I don't think there is any way except for school based curriculum documents to say that “we have covered this and we have covered that” but the reality is that in such a model there is no certain way to ensure what content is actually being covered in the classrooms...

d. What do you think are the strengths of the conceptual curriculum created by the school?” and “ What do you think are the weaknesses of the conceptual curriculum created by the school?”

Answer: It is like telling the teachers here are the students from the PYP and we need to get them ready for the DP, so go and do everything needed between the PYP and the DP to get them ready for the DP...this is far too much a demand to be placed on the teachers...especially subjects like Science and Math.." (Teacher (and parent) 4 years in the school).

#### 4. Cool-off' questions

a. If you were given a choice to choose between teaching a prescriptive curriculum and a curriculum framework such as the one in the current school which is more flexible what would you prefer? Why?

Answer: A prescriptive one with some degree of flexibility like the IB DP!

#### 5. Closure

Do you wish to add anything more?

Answer: No...nothing! good luck!

### **Respondent 3: Teacher**

#### 1. Introductory questions:

- a. Grades you teach: 7-9 and 11 (this year)
- b. Subjects/languages you teach: Science
- c. Your role in the school: (Teacher/Curriculum Leader)

#### 2. Warm-up' questions

a. Number of years you have taught the grades 7-10 curriculum in this school":

Answer: 6 years

b. When you teach the grades 7-10 program, how much influence do you have in the choice of what is taught to your students in the classroom?"



Answer: Not much I'd say...our curriculum leader is quite prescriptive in what he wants to happen in the classroom, so all of this conceptual thing is just on paper...a prescriptive curriculum prescribes what to do by prescribing the content, here in the Conceptual Curriculum we are prescribed in terms of what concepts to "cover", so I don't think it is any different from a text book prescribed curriculum except that here we have to go and search for the content.

c. Do you keep the IB PYP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?" and;

Answer: I should I suppose as I teach grade 7..but to be honest, not really!

d. Do you keep the IB DP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?

Answer: I think our CL has backward mapped all of our curriculum from the IB DP so that would make it so I suppose...

### 3. Main body of the interview

a. What does the "conceptual curriculum" mean to you/can you describe it".

Answer: It all sounds good in philosophy... I totally am a believer that teaching needs to go beyond drilling factual content...we have to teach using real world scenarios and for overarching conceptual understanding etc...but here there is no way we can ensure what is happening in one classroom is the same as in the other (classroom) even when two teachers are teaching the same course... and more importantly to ensure we are covering the required content and skills for a particular grade level..

b. The model of curriculum the school follows for grades 7-10 enables teachers to make the choice of which concepts and topics to include in teaching. What factors do you consider to decide which concepts and topics to adopt/discard for a particular grade level?"

Answer: I suppose my CL would know..?

c. What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?"

Answer: umm...teachers simply go off on a tangent and teach what they find interesting and easy to cover...I had one teacher in my department who taught some topics simply because she had the resources for it and not the other...tell me, where is the consistency? How are we ensuring all students are dipping into the same content that is vertically and horizontally articulated to draw on the overarching enduring understandings or conceptual ideas..?

d. What do you think are the strengths of the conceptual curriculum created by the school?" and "What do you think are the weaknesses of the conceptual curriculum created by the school?"

Answer: As I mentioned in the previous question, consistency is the biggest issue that I see and without consistency, we cannot say who is doing a great job and who is not!

#### 4. Cool-off' questions

a. If you were given a choice to choose between teaching a prescriptive curriculum and a curriculum framework such as the one in the current school which is more flexible what would you prefer? Why?

Answer: I'd say flexible curriculum with some clear-cut benchmarks like the IB DP

#### 5. Closure

Do you wish to add anything more?

Answer: Just a thought that I have always had while at XXXX(GAIS)...: why can't we have textbooks and then teach that content conceptually?

#### **Respondent 4:**

##### 1. Introductory questions:

- a. Grades you teach: I teach 10-12, but as a CL it is my duty to oversee the curriculum 7-12, so I'd say pretty much all year levels...
- b. Subjects/languages you teach: Foreign Languages
- c. Your role in the school: (Teacher/Curriculum Leader): CL

##### 2. Warm-up' questions

- a. Number of years you have taught the grades 7-10 curriculum in this school":  
5 Years

- b. When you teach the grades 7-10 program, how much influence do you have in the choice of what is taught to your students in the classroom?"

Answer: Depends on how we look at it...at the end of the day in the foreign languages classroom students level of the language prescribes what needs to be taught ...

- c. Do you keep the IB PYP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?" and;

Answer: For languages...no! there is no Foreign language department here in the elementary so we begin in middle school

- d. Do you keep the IB DP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?

Answer: Of course! We have get students ready for higher level French and Spanish...

##### 3. Main body of the interview

a. What does the “conceptual curriculum” mean to you/can you describe it”.

Answer: I think it is great to relate everyday teaching to real life “big ideas”, but I also think it does not always happen that easily...so we have the big ideas and the critical thinking and all of that, but we also want to make sure our students can actually communicate in the language class and before we get to all of that they need to have the basic vocabulary and the grammar in place... so for foreign languages I’d say the conceptual curriculum is a mixture of teaching both basic language skills and for advanced learners maybe some conceptual thinking is possible, but not for the beginners...

c. What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?”

Answer: It is one thing to talk about these things and a totally different thing to practice it in the classroom...there are some of who discuss, debate and argue about this philosophy (teaching for conceptual understanding), while there are others who simply say ,”yes, we totally get it”, but just go into the classroom and do their own thing...often they deliver the concepts for a unit like topics and simply “cover” the concepts as they would teach a specific topic just so that the teaching remains within the scope of what they have planned for the unit. The generalizations are given away right at the start of the lesson like any other factual statement and this is totally against the entire philosophy of teaching for conceptual understanding...is anyone checking how effectively (or ineffectively) the philosophy is getting transpired into practice..?”

d. What do you think are the strengths of the conceptual curriculum created by the school?” and “ What do you think are the weaknesses of the conceptual curriculum created by the school?”

Answer: Looks great on planning documents, not happening in the classrooms...

4. Cool-off’ questions

a. If you were given a choice to choose between teaching a prescriptive curriculum and a curriculum framework such as the one in the current school which is more flexible what would you prefer? Why?

Answer: Like I said before...I think any curriculum can be made conceptual... we can teach even a prescriptive curriculum in a conceptual way if the teacher so desires. At the end of the day this is what good teaching is all about...

## 5. Closure

Do you wish to add anything more?

Answer: I hope my answers made sense...thanks Sudha for taking the time to listen to me!

## **Appendix 10: Web-Based Questionnaire- Original draft**

Dear Teachers

The purpose of this questionnaire is to gather data for my doctoral dissertation that is seeking to explore “Teacher perceptions about the development of a conceptually based curriculum program” in particular relation to the conceptual curriculum program the school has developed in order to bridge the IB PYP and the IB DP programs. Your input is valuable to this study and I much appreciate your time on this. I shall be more than happy to share the findings of this study with you when complete.

Sudha Govindswamy Sunder

### **Preliminary Questions: [Introductory/warm-up questions]**

1. How many years have you taught in this school?
2. Which grades do you teach?
3. Which subjects/languages do you teach?
4. Are you familiar with the IB PYP program?
5. Are you familiar with the IB MYP program?
6. Are you familiar with the IB DP program?
7. Did you have experience in teaching the IB program before coming to this school?

### **Conceptual curriculum questions: [Main body of interview Part A]**

8. Do you agree that the grades 7-10 conceptual curriculum program offers a smooth transition from the PYP program? Why?

9. Do you agree that the grades 7-10 conceptual curriculum program prepares students for the IB DP program? Why?
10. How often do you meet with teachers in the elementary school to discuss alignment of the curricular programs ?
11. What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?

**Recontextualization questions: [Main body of interview part B]**

12. How much influence do you have in the choice of what is taught to your students in the classroom?
13. What factors do you consider when deciding to choose or discard some topics from the curriculum in the grades you teach?
14. Do you keep the IB DP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?
15. Do you keep the IB PYP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?
16. What do you think are the strengths of the conceptual curriculum created by the school?
17. What do you think are the weaknesses of the conceptual curriculum created by the school?
18. If you were given a choice to choose between a prescriptive curriculum (where you are given the course material and the books/ resources) and a curriculum framework such as the one in the current school what would you prefer. Why?

**Cool-off questions and Closure (including “sweeper question: is there anything else you would like to add?)**

## **Appendix 11: Web-Based Questionnaire- Final Draft**

Dear Teachers: The purpose of this questionnaire is to gather data for my doctoral dissertation that is seeking to explore “Teacher perceptions about being agents of school based curriculum development” in particular relation to the conceptual curriculum program the school has developed in order to bridge the IB PYP and the IB DP programs. Your input is valuable to this study and I much appreciate your time on this. I shall be more than happy to share the findings of this study with you when complete.

### **Preliminary Questions: [Introductory/warm-up questions]**

1. Grades do you teach:
2. Subjects/languages you teach:
3. Your role in the school:
4. Number of years you have taught the 7-10 curriculum in this school:

### **Conceptual Curriculum questions (Unit of Analysis): [Main body of interview part B]**

5. When you teach the grades 7-10 program do you state upfront the concepts you will be addressing when teaching a particular unit?
6. When you teach the grades 7-10 program do new concepts that you have not planned for emerge as you are teaching a unit? And if so how do you handle them?
7. When you teach the grades 7-10 program, how much influence do you have in the choice of what is taught to your students in the classroom?



8. Do you keep the IB DP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?
9. Do you keep the IB PYP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?
10. What does the “conceptual curriculum” mean/look like in your classroom?>
11. The model of curriculum the school follows for grades 7-10 enables teachers to make the choice of which concepts and topics to include in teaching. What factors do you consider to decide which concepts and topics to adopt/discard for a particular grade level?
12. What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?
13. What do you think are the strengths of the conceptual curriculum created by the school?
14. What do you think are the weaknesses of the conceptual curriculum created by the school?
15. If you were given a choice to choose between a prescriptive curriculum (where you are given the course material and the books/ resources) and a curriculum framework such as the one in the current school what would you prefer. Why?
16. Is there anything else you would like to add?

**Appendix 12: Grade 8 Service Learning project, Experiential Learning  
Project and Grade 10 individual investigation project**

As per the Student Handbook, the Grade 8 Service Learning Project is a:

*“... Quarter-long project in which students identify needs within the local community to provide service. Once a need has been identified, students work individually or in small groups to organize a project that will allow them to actively participate in addressing this need. At the end of the project, students are also required to critically analyze and reflect on their experience.” (Student handbook: pages 56-65).*

The Grade 8 Service Learning Project Coordinator was interviewed in order to understand the relevance of the project within the Conceptual Curriculum. According to her:

*“this project can be seen as a “baby CAS” (Community Action Service component of the IB DP) program if I may say so; something that prepares students for the “Community” component of the IB CAS program. Also, it is never too early to incorporate the value of community service among students. There is no number grade allotted to the project, but it is qualitatively evaluated with students receiving ‘outstanding’, ‘good’ or a ‘satisfactory’ as a grade”.*

The school also has in place the Experiential Learning program that is intended to prepare students for the “Action and Service” components of the Community Action Service (CAS) program of the IB DP. The importance of the Experiential Learning program in the school is stressed as follows:

*“The positive impact of experiential education is evident on curriculum, adventure and service trips. Students have an incredible opportunity to be actively and closely involved with other countries whose residents are not as fortunate as ours. Or to cement their understanding of the curriculum through first hand experiences.”*(Source: school website)

In terms of the Individual Investigation Project, the Curriculum Handbook explains that the topic/goal for the investigation is decided according to the choice of the student. This project is however not linked to a specific taught subject and requires that each student produce a finished product, supported with documentation (in the form of a report) that has recorded the creation of the finished product. The Individual Investigation Project is to be completed outside of class time, with the assistance of a supervisor (teacher) and the project culminates in an “Individual Investigation Fair”, where all the products investigated/created by students would be on display. According to the Individual Investigation coordinator who was interviewed:

*“The Individual investigation project is an extended project of the students’ choice that students undertake in grade 10, which is research oriented designed to prepare students to explore a topic in-depth under the guidance of a supervisor, and is aimed at preparing students for the rigors of the Extended Essay and the IB Diploma Programme.”* (Interview response dated: April 25<sup>th</sup>, 2013)

The Individual Investigation coordinator noted that the Individual Investigation project does not by any means compare to the MYP Personal Project either in magnitude or in rigor

*“I suppose the idea of initiating the Individual Investigation Project was to re-create the MYP Personal Project...I do not know much about it (MYP Personal Project), but do know that it is a culminating experience*

*for the whole MYP program just like the PYP exhibition. The Individual Investigation project however seems to have become 'yet another project initiative' wherein students begin with highly ambitious ideas like building a computer etc, but finally end up doing "easier" things like baking a cake as they understand this is just a minor part of their whole grade for the year...the project has lost its intended philosophy and form and we are even considering scraping it and creating a research assignment type of project that mirrors the depth and rigor of the IB DP Extended Essay.."* (Interview response dated: April 25<sup>th</sup>, 2013)

### **Appendix 13: Plan for coding**

This document was created as a preparation for coding, for the following specific purposes:

- to identify the purpose of each of the questions within the teacher questionnaire;
- to identify the 'start-list' of codes where applicable.

#### **Introductory questions to set the scene:**

1. Grades you teach:
2. Subjects/languages you teach:
3. Your role in the school:
4. "Number of years you have taught (and developed) the Conceptual Curriculum, program in this school"

**Purpose:** To ascertain staff experience in developing the conceptual curriculum

Quantitative data: No Coding.

5. "When you deliver the Conceptual Curriculum program, do you state upfront the concepts you will be addressing when teaching a particular unit?"

**Purpose:** To explore how correctly/incorrectly teachers interpret the framework

#### **Codes:**

- Inductive and Investigative-correct-
- Interpretation Correct – IN CR/Less Teacher Control-LTC

- Front loading and non-investigative-
- Interpretation Incorrect – IN IC/More Teacher Control-MTC

6. “When you deliver the Conceptual Curriculum program do new concepts that you have not planned for emerge as you are teaching a unit? And if so, how do you handle them?”

Purpose #1:\_To explore how correctly/incorrectly teachers interpret the framework

**Codes:**

- Interpretation Correct - IN CR
- Interpretation In-correct - IN IC

**Purpose #2:**To explore whether teacher orient towards strong or weak classification

**Codes:**

- Orienting towards Strongly Classified Curriculum- SC
- Orienting towards Weakly Classified Curriculum- WC

**Purpose #3:** To explore how comfortable teachers are with weak pacing in the lesson as new concepts emerging from teaching will require weak pacing weak classification

**Codes:**

- Orienting towards Strong Pacing-SP
- Orienting towards Weak Pacing- WP

7. “When you deliver the Conceptual Curriculum program, how much influence do you have in the choice of what is taught to your students in the classroom?”

**Purpose#1:** To explore to what extent teachers are willing to negotiate ‘power’ in the classroom

**Codes:**

- Very much influence-More Teacher Power- MTP
- Sufficient Influence- Sufficient Teacher Power- STP
- Not much Influence- Less Teacher Power- LTP

**Purpose# 2:**To evaluate how strongly/weakly the curriculum is classified

**Codes:**

- MTP- SC
- STP-combination of SC &WC
- LTP-WC

8. Do you keep the IB PYP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?

**Purpose:** To assess what teachers prioritize on when choosing curriculum content

- Quantitative data- no coding.

9. Do you keep the IB DP program in mind when choosing the course content for the conceptual curriculum of grades – 7-10?

**Purpose:** To assess what teachers prioritize on when choosing curriculum content

- Quantitative data- no coding.

10. What does the “conceptual curriculum” mean/look like in your classroom?

**Purpose:**

- To give teachers the opportunity to express their classroom experience with the conceptual curriculum
- To assess if the themes emerging are positive, negative or neutral experiences

**Codes:**

- Positive Experience- PE
- Negative Experience-NE
- Neutral Experience- NUE

11. The model of curriculum the school follows for grades 7-10 enables teachers to make the choice of which concepts and topics to include in teaching. What factors do you consider to decide which concepts and topics to adopt/discard for a particular grade level?

**Purpose:** To explore what factors teachers consider important when choosing curriculum material.

- Codes to be developed after responses are generated

12. What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?



**Purpose:** To gather teacher experiences and perceptions and to see if the emerging themes represent positive/neutral/negative experiences

**Codes:**

- Positive Experience- PE
- Negative Experience-NE
- Neutral Experience- NUE

13. What do you think are the strengths of the conceptual curriculum created by the school?

**Purpose:**

- To gather teacher experiences and perceptions and to see what are the positive emerging themes
- Codes to be generated after responses are collected

14. What do you think are the weaknesses of the conceptual curriculum created by the school?

**Purpose:**

- To gather teacher experiences and perceptions and to see what are the positive emerging themes
- Codes to be generated after responses are collected

15. If you were given a choice to choose between teaching a prescriptive curriculum (where you are given the scope and sequence, the course material and the books/resources) and a

curriculum framework such as the one in the current school which is more flexible what would you prefer? Why?

**Purpose:** To ascertain which options teachers prefer based on the experiences generated above and why

**Codes:**

- Prescriptive curriculum- PC
- (Broad) Curriculum Framework- CF
- Combination- PCCF
- No Preference-NP

16. Is there anything else you would like to add?

**Purpose:** Sweeping/closure question so as to provide teachers an opportunity to express any other points they may wish to express.

## Appendix 14: Coding Sheets for question 6

### QUESTION 6: FIRST CYCLE CODING

#### **First Cycle Coding Process**

**Question 6.** “When you deliver the Conceptual Curriculum program do new concepts that you have not planned for emerge as you are teaching a unit? And if so, how do you handle them?”

**Process:** Highlighting the phrases that teachers use to describe their actions when new concepts emerge.

1. It is great to see students coming up with new concepts related to the units, this will lead to a deeper thinking in the class and will give the opportunity to students and teachers work **together to develop conceptual questions**, a new enduring understanding .....etc
2. I constantly respond to student need and teachable moments - when an incidental idea arises or when I note student(s) with an underdeveloped conceptual grasp, I will integrate a focus on that in a connected fashion - i.e. I will **construct an example in a context** that motivates curiosity about that concept and highlights a misunderstanding to first get the student to realize where there may be a gap in understanding. Then I will draw out/guide the students to a an elucidation and possible formalization (as far as is deemed appropriate for the students' levels). Unplanned diversions are daily - this is teaching the students rather than just teaching the curriculum.
3. I go back to test their general knowledge and understanding and then work from there, teaching the unknown and **making sure they do not have misconceptions or misunderstood the idea.** Then I will link it with the current known or **recently taught concept. ONE**
4. If a new concept arise, I just incorporate it into the lesson. As long as it is relevant to the lesson for the day.

5. On the most part, I welcome new thoughts or ideas on how to deal with a subject matter - it indicates to me that the kids are thinking and are engaged - that's the thing about literature, there is more than only one theme or idea or concept that one can explore in the text. Often times I will jot down the new concept and create a lesson that combines or relates the new concept to the one that we have built the unit around.
6. Again, training? My students can't even read music, are expected to participate in IB in a few short years and we're worried about this? I don't see my students enough to have them understand the basic fundamentals, we shouldn't be worried about these things if they can't even do the basics.
7. Discuss the incident with colleagues, identify the concept, look for a smooth way to cover this concept using as many of the planned materials as possible. If a "mini-lesson" or "mini-unit" needs to be developed, we address it, create resources (again, trying to create as little deviation from the flow as possible) and teach students the emergent concept.
8. It is easy for us to be flexible in our lessons, and the point of the lesson is to encourage these new concepts to emerge and explore them even more deeply.
9. Whenever new/relevant concepts emerge throughout my lessons I always try explore these with my class and students.
10. I/we try to incorporate them as we can throughout the unit - we usually bring these ideas up in departmental or group meetings and then decide how to handle them, how relevant they are, and whether we want to change the unit at all for the following year.
11. Run with it, I love it when students make a connection to another similar or related concept. If we are pressed for time I will often have that student do some research on it at home and report back to the class the next day.
12. Not always, because I find with semester based courses the class has to go at such a pace that we often don't have time to digress,

13. I do not teach 7-10
14. Often in Physical Education and Health classes new concepts emerge in open discussion and I encourage class discussion and then make notes on the units and use that information to help planning for the next time we teach that unit.
15. When it comes to English Lit, it is impossible to expect students to only focus on one particular concept. We might have several surface through writing activities or class discussions. I encourage students to work through making connection from one concept to the one we are supposed to be focused on.
16. as best I can given time constraints and the need to post everything ahead of time (assessment calendar, etc.)
17. Since I was developing the Grade 9 Life Science program at the time, sometimes a new concept would come up or I would have to take out a concept. Students were given advance warning and an updated unit sheet with objectives and concepts would be given to the students before the test.
18. I try and discuss them with the students, but I try and find ways to tie it back in with the overall concepts.
19. Briefly touch upon the subject, but at times I wish I could spend more time. However, that being said, it is difficult to deviate away from the curriculum because we are all expected to cover certain material within a specific time frame.
20. I prepare new research and resources.
21. One tries to relate the new concepts to those already being addressed and to fit them into the overall structure.
22. Sometimes there will be a concept which relates to part of a unit, and then I will just introduce it briefly at the beginning of the lesson in which we cover it.
23. work with the students and reflect to include or change the unit for next time.

24. I wish I could answer not applicable
25. We talk it over.
26. Address them as they arise. Things move very organically in an art room.
27. As new concepts arise they are generally addressed in class at the time and then discussed further during a grade meeting.
28. You have to be flexible to promote student understanding.
29. Sometimes we will address them during the lesson, however we usually do not have time to explore further.
30. In context with current events regarding science and application of science.
31. I either address them as they emerge or, if they are too complex or important, I will make time to explain them later on. I explain to the students why I'll explain later though.
32. We will take sometime to discuss the concepts and see how it is related to the concepts we are dealing with.

## QUESTION 6: SECOND CYCLE CODING

### Second-Cycle Coding Process

**Process:** A list of actions highlighted above to be created and emerging categories to be tabulated

work together to develop conceptual questions, a new enduring understanding

I constantly respond to student need and teachable moments - when an incidental idea arises or when I note student(s) with an underdeveloped conceptual grasp, I will integrate a focus on that in a connected fashion - i.e. I will construct an example in a context that motivates curiosity about that concept and highlights a misunderstanding to first get the student to realize where there may be a gap in understanding. Then I will draw out/guide the students to an elucidation and possible formalization (as far as is deemed appropriate for the students' levels). Unplanned diversions are daily - this is teaching the students rather than just teaching the curriculum

making sure they do not have misconceptions or misunderstood the idea.

I just incorporate it into the lesson

I will jot down the new concept and create a lesson that combines or relates the new concept to the one

My students can't even read music, are expected to participate in IB in a few short years and we're worried about this? I don't see my students enough to have them understand the basic fundamentals, we shouldn't be worried about these things if they can't even do the basics.

look for a smooth way to cover this concept using as many of the planned materials as possible. If a "mini-lesson" or "mini-unit" needs to be developed, we address it, create resources (again, trying to create as little deviation from the flow as possible)

1. explore them even more deeply.
2. always try explore these with my class and students.

Run with it

that we often don't have time to digress

and use that information to help planning for the next time we teach that unit.

I encourage students to work through making connection from one concept to the one we are supposed to be focused on.

time constraints and the need to post everything ahead of time

Students were given advance warning and an updated unit sheet with objectives and concepts would be given to the students before the test.

discuss them with the students, but I try and find ways to tie it back in with the overall concepts.

Briefly touch upon the subject, but at times I wish I could spend more time. However, that being said, it is difficult to deviate away from the curriculum because we are all expected to cover certain material within a specific time frame.

I prepare new research and resources

One tries to relate the new concepts to those already being addressed and to fit them into the overall structure.



Sometimes there will be a concept which relates to part of a unit, and then I will just introduce it briefly at the beginning of the lesson in which we cover it.

work with the students and reflect to include or change the unit for next time.

I wish I could answer not applicable

We talk it over.

Address them as they arise. Things move very organically in an art room.

As new concepts arise they are generally addressed in class at the time and then discussed further during a grade meeting.

You have to be flexible to promote student understanding.

Sometimes we will address them during the lesson, however we usually do not have time to explore further.

In context with current events regarding science and application of science.

I either address them as they emerge or, if they are too complex or important, I will make time to explain them later on. I explain to the students why I'll explain later though.

We will take sometime to discuss the concepts

### QUESTION 6: TABULATION OF CODING

Emerging categories from coding	Number of responses in each category
Will incorporate the new concepts in teaching	23
Negative stand- lack of time; assessment constraints	5
Use the opportunity to reflect and plan further	2
Check for “misunderstanding” of concepts	2
Make connections with other related knowledge and concepts	3

## Appendix 15: Coding Sheets for question 10

### QUESTION 10- FIRST CYCLE CODING

#### **First Cycle Coding Process**

**Question 10. What does the “conceptual curriculum” mean/look like in your classroom?**

**Process:** Highlighting the phrases that teachers use to describe the conceptual curriculum.  
[Highlight in YELLOW to denote teachers express their experience in a positive way and in RED to denote that teachers have taken a negative stand/limiting experience in describing the conceptual curriculum]

1)It is un **umbrella guide** which shades my design lessons.

2)It should be an active way of learning however being in a second language class with non native Arabic speakers is not helping that much in using the conceptual curriculum to its full "capacity"!! I am not sure if a made this point clear

3)More challenge questions More enjoyable classroom

4)- More challenge questions for students. Higher order thinking skills.

5)-

---

6)Students are peppered with thinking-inducing questions, and guided to elucidate and communicate the underlying mathematical ideas and relationships - this is simply what I believe the focus of mathematics learning should be. Work is frequently posed in an investigative fashion - devised to provide the opportunity to generalize and to draw out the connection of mathematical ideas in the students' minds. Even skills repetition is framed in a way to enable recognition of patterns in ideas. This is how I have always taught as this is where the beauty of mathematics lies - I have never taught students to memorize formulas and I will never focus on factual recall - it will always be about structural connection (and abstract analogy).

7)Concepts like "Change" is covered in all 3 parts of Science

8)To be able to be a well-rounded student that can think critically is a skill. The only way to do that is to extend students knowledge by giving examples of life (think it is easy in Biology) and from there the student can form their ideas and base their general knowledge on unknown or more challenging concepts. Learn by experience is a key word, and what is going on in the world and how do we apply it to our current topics

9)It means that instead of having a specific text or type of text as the central guide of the classroom, I have an idea or concept that drives student learning. It helps students to relate the text to the world outside of the classroom, not just focus on the text in and of itself. The conceptual curriculum opens up the text for a whole new level of interpretation and analysis

10)Probably a hodgepodge of different ideas.

11)-

12) We recognize the larger ideas (Enduring Questions) and relevant "big picture" skills - holistic thinking and writing, **inter-disciplinary connections**, various methods and styles of effective communication, and cultivating the INDIVIDUAL voice of each student - these are the real endgames of the year. The links to IB and the CC break these abstract goals into tangible steps

13) Teaching students how to move from one level to another level in thinking. And encouraging students to demonstrate **different learning skills and styles**

14) Teaching students **concepts other than knowledge**. Teaching students in easy to difficult levels. Demonstrating the lessons in a way that is more applicable and understandable to students. Use mind mapping to ease the contents

15)-

16) Units that are based upon broad concepts but that are made more specific with regards to texts/themes/etc - this works well as English is theoretical in nature and there cannot be a definitive focus/answer through discussion of broader issues of human nature, conflicts, etc.

17) The "conceptual curriculum" means flexibility and **opportunities to explore ideas** and concepts within a framework that is not "set in stone".

18) That is still something, as language teachers, that we struggle with. It does not look like what I can imagine it does in the social sciences. The conceptual curriculum, as it is "implemented" in the languages, is just on paper, and not necessarily in practice (at least from my understanding of it).

19)-

20) Broad **based thinking** / theories from regional / global issues; applied to specific countries and case studies. Then applying what we learnt our what

works well and evaluating whatever that can be applied on a regional / global scale

21)-

22)The IBDP operates on the conceptual base as well. If one looks at the over-reaching objectives of any course, they are **conceptual, not content-based**, in nature.???

23)Each unit of instruction has a concept. That **particular concept generates questions which then inspires lessons.**

24)In the classroom , It looks like **organization for the ideas of the** lesson.

25)It is the **blue print for what happens** in the classroom, enduring understands are discussed an compelling questions are the back ground focus of my lessons

26)**Student-centered activities** where the students need to take in different concepts and relate them to an overall concept. Examples are creating skits/models which relate organelles to the entire cell, and relating them to interdependence, and doing the same for an ecosystem project and how all of the biotic and abiotic factors are interdependent.

27)The conceptual curriculum allows the teacher to **plan a series of units around specific concepts**. For example in mathematics, we have designed curriculum to follow units like Change, Shape, and Relationships.

28)Like an **IBDP** training program

**29)It is sometimes hard to apply since we switch topics so often in the middle school curriculum. However, some concepts would be that the universe is**

conservatory even though things change all the time. I'm still trying to grasp the conceptual curriculum, to be honest.

30) Starting the unit with a guiding question, a question that will guide your unit.

31) It pretty much is a main focus for what we're learning. We focus a lot of our questions and ideas around what that concept may be. At times we deviate away from that, but we try our best to go back and address those concepts. There are times it's difficult when we are wanting to cover other forms of English, but have to continually refer back to the concept.

32) Most often as discussion of compelling questions and of comparing ideas/concepts from history to current events.

33)-

34) It means, how the classroom looks, feels and sounds like. I feel that the conceptual approach although good still only works with a background in the subject matter. When it comes to sport or to activities that have a set of rules or laws, it is difficult to teach conceptually. I feel that you have an overall theme but it still needs to be taught in a manner that gives the students the information to play the game or do the activity in the way they so chose under the rule or laws of the activity or sport.

35) We talk about big ideas a lot to make sure that students can understand why they do their studies, but they tend to just want strategies and support.??

36) Conceptual curriculum is the core concept.

37) To be honest not much different as it has been very superficial with regards to how the conceptual curriculum can be integrated with the IB program.

---

38) Grade 9 - Change Grade 10 - Systems and Relationships

39)-

40) Math is a conceptual language by nature so it really is the same for me as it has always been.

41)-

42) Working around themes. Having guiding questions. Building toward the eventual DP curriculum and structure.

43) Concept curriculum is not meant to be at the front of your curriculum. It is not "a look" in my classroom. Instead it is what students are learning, and applying facts to.

44) Students asking questions while they learn A basis for understanding and analyzing news articles An introductory to understand the command terms of the IB.

45)-

46) It is the basis of my teaching. The bread crumbs I use to bring the student where they need to be by quarter 4. At the same time I am flexible enough to add to it or review previous concept if need be.

47)-



## **QUESTION 10- SECOND CYCLE CODING**

### **Second-Cycle Coding Process**

**Process:** Remove the key phrases highlighted above and present in a tabular form to distinguish responses indicative of a positive tone versus those who have indicated a negative/limiting tone

<b>Phrases used to describe the conceptual curriculum in a limiting and negative perspective</b>	<b>Phrases used to describe the conceptual curriculum in a positive perspective</b>
Grade 9 - Change Grade 10 - Systems and Relationships	umbrella guide
is difficult to teach conceptually	More challenge questions More enjoyable classroom
	More challenge questions for the students Higher order thinking skills.
still trying to grasp the conceptual curriculum, to be honest	Higher order thinking skills.
just on paper, and not necessarily in practice	peppered with thinking-inducing questions; devised to provide the opportunity to generalize and to draw out the connection of mathematical

	ideas
Probably a hodgepodge of different ideas.	to extend students knowledge by giving
not helping that much in using the conceptual curriculum in a second language class	that drives student learning.
very superficial with regards to how the conceptual curriculum and be integrated with the IB program.	relate the text to the world
	opens up the text for a whole new level of interpretation and analysis
	holistic thinking and writing, inter-disciplinary connections
	demonstrate different learning skills and styles
	more applicable and understandable to students
	discussion of broader issues of human nature
	opportunities to explore ideas

	Broad based thinking
	objectives of any course, they are conceptual, not content-based
	organization for the ideas
	blue print for what happens
	Student-centered activities
	a guiding question, a question that will guide your unit.
	discussion of compelling questions
	Working around themes
	Students asking questions while they learn
	The bread crumbs I use ...flexible enough

## Appendix 16: Coding Sheets for question 11

### QUESTION 11- FIRST CYCLE CODING

#### **First Cycle Coding Process:**

**Question 11:** The model of curriculum the school follows for grades 7-10 enables teachers to make the choice of which concepts and topics to include in teaching. What factors do you consider to decide which concepts and topics to adopt/discard for a particular grade level?

**Process:** Highlighting phrases than indicate “factors” teachers consider in deciding which concepts and topics to include or discard for a particular grade level. Different colors used as new themes or factors emerge so as to be able to identify the most common factor to the least.

- 1) With the updated **scope and sequence** curriculum in FL teachers are quite happy because it works well.
- 2) Units/Concepts should be related to: Long life learners Common things among all core subjects Units and concepts reflect the need for **IBDP curriculum**
- 3) Curriculum contents, **students' level**, resources
- 4) - **Level of students** - Curriculum contents.
- 5) The 4 language skills, the **topics interested to students**
- 6) I don't drop concepts - Obviously **prescribed content** dictates important related concepts - however I believe in responding to students' conceptual needs - and there are hundreds of these - again teaching the students, not just the curriculum.

7) What they need to know for the IB program Basic concepts they need to know when going to College or University

8) As we are preparing our students to be IB savvy - we will have to look at what is the background knowledge students will need to succeed and even if they do not take this specific subject, still have a good general knowledge to make them well-rounded conversationalists and knowledgeable to discuss and draw on their experience.

9) These decisions have already been made in past years, so we do not decide the concepts as it has been done already. If a particular unit does not work very well, we will revamp it, but that has not happened very often.

10) Skills for that particular age level, based on what they need to be able to do, given our time constraints, and quite honestly as the IB music program is essentially A Levels using British resources to get our students ready for IB.

11) The results of the needs assessment that was given to parents in the past year. We also rely on teacher and student feedback regarding the given lessons.

12) Degree of creative and critical thinking inspired by the concept and topic (often, this is discussed in regards to learning materials designed to explore these concepts and topics) Available reading material and technology Links to "endgame" skills identified above Links to tangible IB tasks and skills. Student interest Variety of knowledge demonstration Differentiation for culture, ability, etc.

13) 1 - Students levels. 2 - What they need in their daily life that fits specific occasions. 3 - Curriculum contents.

14) 1. Curriculum contents 2. grade level 3. students abilities

15) Our conceptual curriculum for my department has been created before I arrived at GAIS. The concepts and topics for Grade 7-10 haven't been modified since.

16) -what they've done in previous grades

- texts/assessments/topics/etc - which assessments are necessary for that grade level to best prepare them for upcoming grades

- which texts (both literary and non-literary) and issues that we would like to explore

- which units need to be adapted/changed for the upcoming grade levels and how

- if a unit has become redundant due to the ever-evolving curriculum, we usually replace it with something more relevant (and at times more rigorous) for the coming year

17) -Concepts covered in previous years

- Concepts that will be covered in future years

- Concepts covered in DP program

- Appropriateness of concepts to student age and ability

18) In languages, it is all about preparation for the IB. A student who starts a language in grade 7 and progresses in the same language until he reaches grade 10, should ideally be prepared to take language B. Therefore, concepts and topics are chosen with that goal in mind.

19) For PE its a bit different, but we generally look at making sure there is progression each year, and different concepts per unit (ie cooperative games, invasion, individual. ) and how they can use these sports and concepts in their everyday life.

20) Wwe backward map from IB, so yes we do choose very carefully what goes into 7-10.

21) We look at the skill and concepts required in grade 11 and then ensure that the concepts and topics are designed to be appropriate for the grade level but also build their content knowledge and skill base to ensure they are well prepared for the IB

22) Again, I am not a 7-10 teacher, but the concepts SHOULD directly link to the concepts/topics in the IBDP - scaffolded through 7-10.

23) The concepts were already chosen before I started teaching here.

24) yes, it enable teachers to make the choice of topics and concept

25) I look at the four main units to be covered in IB diploma and scaffold backwards to grade 10, using real world examples for the region to deliver the course.

26) 1. What is needed in regards to vertical alignment to IB. 2. What is needed to meet New York State Standards.

27) I take into consideration what knowledge students should have acquired from their previous year and what knowledge they would need to have to be ready for the upcoming year.

28) I don't know- the choices for concepts were made prior to my arrival. (not a criticism, just a fact)

29) For science, the content is preset by the standards, but we can choose how and when they are addressed. I attempt to group things so that they are conceptually easy to understand and associate with each other.

30) What concept topics are taught the previous year and for the next year.

31) I think the literature makes a huge difference for what we want to cover as well as the age range that is suitable for all that we will cover. Questions that come up may be what kinds of literature will we be able to include for this concept, and will we have/do we have the literature to cover that?

32) I choose the concepts based on which ones fit best with the topic at hand, and the topics are chosen based on preparation for the IB diploma program.

33) The topics to "skip", if necessary, would be those least relevant as building blocks for the following year(s).

34) what is most appropriate for the age group and what they will be able to comprehend based up experience. we then try to reflect on the unit and make sure that it has been successful or not.

35) I think whether it is very important for them.

36) vertical alignment

37) The ones that are most general and easily adapted to multiple areas such as relationships and change lens. However it is never focused on specifically.

38) Our curriculum is chosen already. We adapt, change, and rewrite each semester.

39) Everything is covered throughout grades 7-10 that students will need later when completing the IB program.

40) Common core standards and IB Standards

41) These are based on IBDP and on grade level skills.

42) Both teacher and student interest as well as addressing needs for a student leading into IB art.

43) IB program and what is needed by the time they get to grade 11.

44) Some topics directly lend itself to specific concepts

Some topics touch relate to more than one concept, in this case, in class we choose the concepts we didn't cover before.



Some concepts are recognized by students much easier than others, students can apply it better.

Variety is key.

45) I see what IB requires and go from there.

46) We have a choice for topics, not concepts.

We consider as a group which general topics to use,

We are quite free in their interpretation though. Factors considered are : - suitability for age group / culture of the country

- Relevance to the concepts

- Difficulty

- Flow from one level to the next

47) Age appropriateness, relevance, how it adds onto the grade 11 and 12 syllabus.

## QUESTION 11- SECOND CYCLE CODING

### Second Cycle Coding Process:

Tally each factor indicated by a different color and arrive at final numbers.

- 1) With the updated **scope and sequence** curriculum in FL teachers are quite happy because it works well.
- 2) Units/Concepts should be related to: Long life learners Common things among all core subjects Units and concepts reflect the need for **IBDP curriculum**
- 3) Curriculum contents, **students' level**, resources
- 4) **- Level of students** - Curriculum contents.
- 5) The 4 language skills, the **topics interested to students**
- 6) I don't drop concepts - Obviously **prescribed content** dictates important related concepts - however I believe in responding to students' conceptual needs - and there are hundreds of these - again teaching the students, not just the curriculum.
- 7) What they need to know for the **IB program Basic** concepts they need to know when going to College or University
- 8) As we are preparing our students to be **IB savvy** - we will have to look at what is the background knowledge students will need to succeed and even if they do not take this specific subject, still have a good general knowledge to make them well-rounded conversationalists and knowledgeable to discuss and draw on their experience.

9) These decisions have already been made in past years, so we do not decide the concepts as it has been done already. If a particular unit does not work very well, we will revamp it, but that has not happened very often.

10) Skills for that particular age level, based on what they need to be able to do, given our time constraints, and quite honestly as the IB music program is essentially A Levels using British resources to get our students ready for IB.

11) The results of the needs assessment that was given to parents in the past year. We also rely on teacher and student feedback regarding the given lessons.

12) Degree of creative and critical thinking inspired by the concept and topic (often, this is discussed in regards to learning materials designed to explore these concepts and topics) Available reading material and technology Links to "endgame" skills identified above Links to tangible IB tasks and skills. Student interest Variety of knowledge demonstration Differentiation for culture, ability, etc.

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16) -what they've done in previous grades

- texts/assessments/topics/etc - which assessments are necessary for that grade level to best prepare them for upcoming grades

- which texts (both literary and non-literary) and issues that we would like to explore

- which units need to be adapted/changed for the upcoming **grade levels** and how

- if a unit has become redundant due to the ever-evolving curriculum, we usually replace it with something **more relevant** (and at times more rigorous) for the coming year

17) -Concepts covered in **previous years**

- Concepts that will be covered in future years

- Concepts covered in **DP program**

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19) For PE its a bit different, but we generally look at making sure there is **progression each** year, and different concepts per unit (ie cooperative games, invasion, individual. ) and how they can use these sports and concepts in their everyday life.

20) We backward map **from IB**, so yes we do choose very carefully what goes into 7-10.

21) We look at the skill and concepts required in grade 11 and then ensure that the concepts and topics are designed to be appropriate for the grade level but also build their content knowledge and skill base to ensure they are well prepared for **the IB**

22) Again, I am not a 7-10 teacher, but the concepts SHOULD directly link to the concepts/topics in the **IBDP** - scaffolded through 7-10.

- 23) The concepts were already chosen before I started teaching here.
- 24) yes, it enable teachers to make the choice of topics and concept
- 25) I look at the four main units to be covered in IB diploma and scaffold backwards to grade 10, using real world examples for the region to deliver the course.
- 26) 1. What is needed in regards to vertical alignment to IB. 2. What is needed to meet New York State Standards.
- 27) I take into consideration what knowledge students should have acquired from their previous year and what knowledge they would need to have to be ready for the upcoming year.
- 28) I don't know- the choices for concepts were made prior to my arrival. (not a criticism, just a fact)
- 29) For science, the content is preset by the standards, but we can choose how and when they are addressed. I attempt to group things so that they are conceptually easy to understand and associate with eachother.
- 30) What concept topics are taught the previous year and for the next year.
- 31) I think the literature makes a huge difference for what we want to cover as well as the age range that is suitable for all that we will cover. Questions that come up may be what kinds of literature will we be able to include for this concept, and will we have/do we have the literature to cover that?
- 32) I choose the concepts based on which ones fit best with the topic at hand, and the topics are chosen based on preparation for the IB diploma program.
- 33) The topics to "skip", if necessary, would be those least relevant as building blocks for the following year(s).

34) what is most appropriate for the age group and what they will be able to comprehend based up experience. we then try to reflect on the unit and make sure that it has been successful or not.

35) I think whether it is very important for them.

36) vertical alignment

37) The ones that are most general and easily adapted to multiple areas such as relationships and change lens. However it is never focused on specifically.

38) Our curriculum is chosen already. We adapt, change, and rewrite each semester.

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41) These are based on IBDP and on grade level skills.

42) Both teacher and student interest as well as addressing needs for a student leading into IB art.

43) IB program and what is needed by the time they get to grade 11.

44) Some topics directly lend itself to specific concepts

some topics touch relate to more than one concept, in this case, in class we choose the concepts we didn't cover before.

Some concepts are recognized by students much easier than others, students can apply it better.

Variety is key.

45) I see what IB requires and go from there.

46) We have a choice for topics, not concepts.

We consider as a group which general topics to use,

We are quite free in their interpretation though. Factors considered are : -

suitability for age group / culture of the country

- Relevance to the concepts

- Difficulty

– Flow from one level to the next

47) Age appropriateness, relevance, how it adds onto the grade 11 and 12 syllabus.

### **Summary of Code Tallies:**

Preparation for the IB DP- 20

Students' level/grade level/Age Appropriateness – 12

Progression from other grade levels/Vertical alignment- 9

Prescribed content- 5

Made before arrival- 6

Pre-set Standards-2

### **Other factors mentioned – each one time**

- Topic Interested to Students/teachers
- What is needed in daily life
- Creativity inspired by concept
- Relevance
- Easily adaptable
- Variety
- Culture of the country
- Evolve from Students

## Appendix 17: Coding Sheets for question 12

### QUESTION 12: FIRST CYCLE CODING

#### **Question:**

**What are your experiences in developing and delivering the grades 7-10 conceptual curriculum program at the school?**

#### **Codes available in “start-list”:**

1. “Positive experience” indicated as ++
2. “Negative experience ” indicated as –
3. “Incorrect interpretation” indicated as IN

**Process: Highlight words that indicate experience as expressed by teachers. Assign the codes as identified above.**

#### **Responses :**

1. I think the conceptual curriculum model gives teacher **enough autonomy** in deciding what to include and what not to and how to go about teaching and learning. Having said that most of the times it does leave us with a feeling of **'are we doing it right'**? It is also quite difficult to make parents understand how this model works as they always want text books and chapter number identified for a 'unit. –[SOME NEW CODES EMERGING]
2. Our conceptual curriculum follows most of what the current language book do. There is a logical scaffolding to teaching a language that we also apply in our curriculum. Pretty **good experience** so far after a little bit of adapting to the "no-book" rule. ++
3. It's **basically forcing something that should not be there**. --
4. Some topics are **easier** to link to some concepts while others can **be challenging**. Not all students can grasp the concept as quickly as others Some students get confused as whether they need to learn the



concept or the topic. They don't realize that topics fit under the "umbrella" of a particular concept.[NO CODE AVAILABLE]

5. Highly experienced from previous school. Do **it instinctively**. [IN]

6. PD last year. [IN]

7. The building and rebuilding of the curriculum has been a long road. I am happy to have **been involved** in it, but also **to be finished with it**. Each unit is reviewed yearly.--

8. Not everyone is on board with the conceptual curriculum. Other school districts hire **professionals to develop curriculum** for them. I do not think that most teachers at this school have the experience to develop a curriculum on their own.—[SOME NEW CODES EMERGING]

9. Seems to be very structured and has **little room for change**. [NO CODES AVAILABLE]

10. The curriculum is **repeatedly written and rewritten**. [NO CODES AVAILABLE]

11. **Limited to** what was expected of us when given time. [NO CODES AVAILABLE]

12. **Its okay** [NO CODES AVAILABLE]

13. Great, but I don't actually develop or deliver it in any normal way. [++ AND NEW CODES EMERGING]

14. it has been a **massive frustration** and at times a waste of time. when many schools have built and used a PE curriculum with great success for many years.--

15. Very little. [IN]

16. It was **frustrating at first, because it was so prescriptive** in the concepts that we were given to work with. We didn't have a choice and the concepts were driving the curriculum and didn't always fit with the topics. Now since redoing the history curriculum we have been given more flexibility in which concepts we want to use with the content which we feel is important to prepare kids for the DP program, and that has been easier to work with.—[NEW CODES EMERGING]

17. I haven't had much experience with the program considering I am new, but we have tried to make it a little more focused on some of the concepts when they deviate too far. [NO CODES EMERGING]
18. **Time consuming**. When I taught in Canada the curriculum is set out for you, and you can still choose your own concepts, but over all, I think the school asks too much from the teacher to plan curriculum. People who plan curriculum are "masters" of their specialty, and plan for a province or a state as a whole.—[NEW CODES EMERGING]
19. Not very much as I have only been here for a year. I have found what I have encountered **difficult to implement effectively**, especially when working as part of a team.--
20. We adapt it continually so I feel like it is **constantly being developed**. [NEW CODES EMERGING]
21. I find it really **difficult to organize** mathematical concepts around a logical unit or under terms like change, shape and relationships. Math is usually taught in a sequence of concepts. [NEW CODES EMERGING]
22. I have been involved in the development of it every year. [NEW CODES EMERGING]
23. The initial period where the CC was introduced was **quite difficult**. On a whole school planning level I feel most staff **were unsure** of what a CC was. The last two years I have gained a lot more clarity on what a CC should look like and contain. I am far more **confident now** than I was a couple of years back. The delivery of content was never an issue but always second guessing if I was building the curriculum correctly was a hovering thought. [NEW CODES EMERGING]
24. One year working with GAIS was a start to understand the idea and try to practice it in my teaching style. [NEW CODES EMERGING]
25. The experiences vary; the variables include each student I teach. Since students have such diverse learning styles and abilities, student receive concept based instruction differently. Most of my experiences have been **positive and even liberating**.++

26. I was Department Head in English when we introduced the CC. It took some time to get my head around the principles and construction. Atlas helps to clarify expectations.[NEW CODES EMERGING]
27. Little - I've only taught one year of middle school in the 4 years I've been here. The conceptual curriculum is similar to the philosophy of my home country curriculum though - it can be a little airy fairy at times, I worry that not all. [NEW CODES EMERGING]
28. I enjoy the freedom, but this coupled with the responsibility of ensuring it is being delivered at the appropriate level / complexity. In a national system this would all be decided, which is restricting, but the responsibility is also removed. I find that many teachers find this quite difficult to deal with.++
29. Each year we re-evaluate the lessons, create new ones, and expand on what we taught the year before.++
30. Frustrating. Give us a solid example of how a conceptual curriculum in languages is taught in other schools (not just on paper, but in actual practice) and you will make believers out of us. After four years of working with the conceptual curriculum, I am still unsure of how to teach a grade 7 student who is learning numbers, colors, school subjects, and conjugating verbs how that is all tied in to their "identity," or "relationships" or "connections". Again, on paper, it all looks and sounds great. But in reality, I have yet to see a solid, convincing example of how this is done in the foreign languages.--
31. I have been involved in developing and implementing conceptual curriculum for a number of units and grade levels both as a team and individually. In addition, I have attended a number of PD sessions about developing and implementing c.c.[IN]
32. When I started at GAIS there WAS no English curriculum and so we had to build it entirely from scratch. It was definitely a learning experience in terms of organizing assessments, topics, outcomes and texts - having to think both horizontally and vertically at the same time was

a bit challenging. But over the years we have streamlined our curriculum to be both rigorous and competitive - it is one that prepares students well for the difficulties of both the IB and university level. It does not lend itself to "gimme" marks - students have to put the effort in to succeed.++

33. After 4 years at the school, I feel very confident in the way I deliver the program. I constantly change my content in order to cater to all students.++[NEW CODES EMERGING]

34. Good. This is my second year applying this program++

35. Good it make the subject more interesting for teachers and students as well. It teaches students how to be critical thinkers.++

36. collegiate - it challenges teachers to grow++

37. Since the advisory program relies mainly on developing skills and awareness to be successful in an academic and social/personal setting, it has been a challenge in keeping the lessons attractive and meaningful to all.[NEW CODES EMERGING]

38. Not good! It's a frustrating experience when it seems as if you're constantly shooting at a moving target.- [added from last question- I guess I would say I do like the freedom to choose as it allows you to really custom tailor lessons to each individual student. It's a lot more work, and often it feels as if things go missing in the overall picture. The one we have now is definitely more flexible, but sometimes I miss the comfort of using someone who has advanced degrees in curriculum design's work, as I'm sure they're better at it than I am.--

39. The development of the curriculum has been a journey of confusion and frustration, if I'm honest. I don't think that I have had enough training to develop a curriculum and having only a couple of workshops about the conceptual curriculum does not replace a fully trained and qualified group of professionals who know exactly what they are doing creating and developing a functioning, reasonable and logical curriculum. With this being said, however, our department (English) has done a pretty good job of developing some curriculum. As far as the delivery goes, though,

sometimes I can go through an entire unit without even really considering the written curriculum. We have the broad ideas at the beginning of the unit but the follow through and day to day of the delivery sometimes obscures the concept and we forget about it.--

40. None - as I did not develop anything yet as it is first year teaching Life Science. [IN]

41. When **changing the curriculum** , we sometime experience the fact that we do not have the practical equipment for experiments for THAT year, as orders need to be done the previous year.[NEW CODES EMERGING]

42. What we call the 'conceptual curriculum' is about how we teach - not what we teach. The very nature of mathematics is conceptual and it does not fit neatly into a small(or even large) collection of 'concepts' - They are also all interrelated and connections should be drawn wherever students are able to see them (without overload) - this should not be determined by trying to fit mathematics into limited set of 'conceptual foci'. Any lesson on any day can draw on many, many concepts. This is not to say there isn't some curriculum model that increases its conceptual focus - particularly for teachers more accustomed to an algorithmic approach - that could work for Mathematics - I believe in an investigative approach and if I ever had the time, I would build this more concretely into our collective programme - however sufficient time to make any real progress with this is never available - the 'conceptual curriculum' is an idea that is not 'fully-baked' in regards to mathematics- **and no evidence that anyone on this planet has it 'fully-baked'** To structure mathematics into a conceptual model in any comprehensive and effective programme would take a huge allocation of resources - without it we are just pretending. In the meantime, we have to prioritize mathematics learning.--

43. Establishing Arabic Conceptual curriculum using Ministry topics, with full influence

44. We have learned about it last year and we started applying it.[NEW CODES EMERGING]

45. this is my first year applying it at school[IN]

46. It was a **great opportunity to experience** how to create and develop curriculum program in general. I had experience in choosing concepts and units, developing scope and sequence, work on rubrics and assessments, for grades 7-10 for both regular Arabic and AFL. ++

47. You **need teachers qualified and interested** on Curriculum development. [NEW CODE EMERGING]

#### **Notes and Reflection on First Cycle coding:**

1. Coding revealed not all responses could be placed neatly into the three codes as identified in the start list.
2. When responses indicated a ***new code emerging*** this was indicated next to the response during the first cycle coding.
3. From the above , the following codes have been identified for the second-cycle coding:

<b>Response Indications</b>	<b>Second-cycle coding</b>
Responses that indicate a clearly positive experience	CP
Responses that indicate a clearly negative experience	CN
For responses that indicate that teachers are challenged by the experience	CH
For responses that indicate respondent is taking a neutral experience	NU
Responses that indicate an incorrect interpretation	IN
Any other responses that do not fall in the above categories	OTH

## QUESTION 12- SECOND CYCLE CODING

### CODES IDENTIFIED FOR SECOND CYCLE CODING:

Response Indications	Second-cycle coding
Responses that indicate a clearly positive experience	CP
Responses that indicate a clearly negative experience	CN
For responses that indicate that teachers are challenged by the experience regardless of it being positive or negative	CH
For responses that indicate a neutral experience through a statement	NU
Responses that do not have a relevant code	NC
Any other responses that do not fall in the above categories	OTH

### Responses :

1. I think the conceptual curriculum model gives teacher **enough autonomy** in deciding what to include and what not to and how to go about teaching and learning. Having said that most of the times it does leave us with a feeling of **'are we doing it right'**? It is also quite difficult to make parents understand how this model works as they always want text books and chapter number identified for a 'unit. --[CH]
2. Our conceptual curriculum follows most of what the current language book do. There is a logical scaffolding to teaching a language that we also apply in our curriculum. Pretty **good experience** so far after a little bit of adapting to the "no-book" rule. ++[CP]
3. It's **basically forcing something that should not be there**. --[CN]
4. Some topics are **easier** to link to some concepts while others can **be challenging**. Not all students can grasp the concept as quickly as

others Some students get confused as whether they need to learn the concept or the topic. They don't realize that topics fit under the "umbrella" of a particular concept.[CH]

5. Highly experienced from previous school. Do it instinctively.[NU]

6. PD last year.[NC]

7. The building and rebuilding of the curriculum has been a long road. I am happy to have been involved in it, but also to be finished with it. Each unit is reviewed yearly.++[CH]

8. Not everyone is on board with the conceptual curriculum. Other school districts hire professionals to develop curriculum for them. I do not think that most teachers at this school have the experience to develop a curriculum on their own.[CH]

9. Seems to be very structured and has little room for change.[NC]CN?

10. The curriculum is repeatedly written and rewritten.[NC+CH]CN?

11. Limited to what was expected of us when given time. [NC]

12. Its okay[NU]

13. Great, but I don't actually develop or deliver it in any normal way. ++ [OTH]

14. it has been a massive frustration and at times a waste of time. when many schools have built and used a PE curriculum with great success for many years.--[CN][CH]

15. Very little.[NC]

16. It was frustrating at first, because it was so prescriptive in the concepts that we were given to work with. We didn't have a choice and the concepts were driving the curriculum and didn't always fit with the topics. Now since redoing the history curriculum we have been given more flexibility in which concepts we want to use with the content which we feel is important to prepare kids for the DP program, and that has been easier to work with.—[CN][CH]



17. I haven't had much experience with the program considering I am new, but we have tried to make it a little more focused on some of the concepts when they deviate too far. [OTH]
18. **Time consuming**. When I taught in Canada the curriculum is set out for you, and you can still choose your own concepts, but over all, I think the school asks too much from the teacher to plan curriculum. People who plan curriculum are "masters" of their specialty, and plan for a province or a state as a whole. –[CN][CH]
19. Not very much as I have only been here for a year. I have found what I have encountered **difficult to implement effectively**, especially when working as part of a team. –[CN][CH]
20. We adapt it continually so I feel like it is **constantly being developed**. [CH]
21. I find it really **difficult to organize** mathematical concepts around a logical unit or under terms like change, shape and relationships. Math is usually taught in a sequence of concepts. [CH]
22. I have been involved in the development of it every year. [NC]
23. The initial period where the CC was introduced was **quite difficult**. On a whole school planning level I feel most staff **were unsure** of what a CC was. The last two years I have gained a lot more clarify on what a CC should look like and contain. I am far more **confident now** that I was a couple of years back. The delivery of content was never an issue but always second guessing if I was building the curriculum correctly was a hovering thought. [CH]
24. One year working with GAIS was a start to understand the idea and try to practice it in my teaching style. [NC]
25. The experiences vary; the variables include each student I teach. Since students have such diverse learning styles and abilities, student receive concept based instruction differently. Most of my experiences have been **positive and even liberating**. ++[CP]

26. I was Department Head in English when we introduced the CC. It took some time to get my head around the principles and construction. Atlas helps to clarify expectations.[CH]
27. Little - I've only taught one year of middle school in the 4 years I've been here. The conceptual curriculum is similar to the philosophy of my home country curriculum though - it can be a little airy fairy at times, I worry that not all. [NC]
28. I enjoy the freedom, but this coupled with the responsibility of ensuring it is being delivered at the appropriate level / complexity. In a national system this would all be decided, which is restricting, but the responsibility is also removed. I find that many teachers find this quite difficult to deal with.++[CH]
29. Each year we re-evaluate the lessons, create new ones, and expand on what we taught the year before.++
30. Frustrating. Give us a solid example of how a conceptual curriculum in languages is taught in other schools (not just on paper, but in actual practice) and you will make believers out of us. After four years of working with the conceptual curriculum, I am still unsure of how to teach a grade 7 student who is learning numbers, colors, school subjects, and conjugating verbs how that is all tied in to their "identity," or "relationships" or "connections". Again, on paper, it all looks and sounds great. But in reality, I have yet to see a solid, convincing example of how this is done in the foreign languages.--[CN][CH]
31. I have been involved in developing and implementing conceptual curriculum for a number of units and grade levels both as a team and individually. In addition, I have attended a number of PD sessions about developing and implementing c.c.[IN]
32. When I started at GAIS there WAS no English curriculum and so we had to build it entirely from scratch. It was definitely a learning experience in terms of organizing assessments, topics, outcomes and texts - having to think both horizontally and vertically at the same time was

a bit challenging. But over the years we have streamlined our curriculum to be both rigorous and competitive - it is one that prepares students well for the difficulties of both the IB and university level. It does not lend itself to "gimme" marks - students have to put the effort in to succeed.++[CP]

33. After 4 years at the school, I feel very confident in the way I deliver the program. I constantly change my content in order to cater to all students.++[CH]

34. Good. This is my second year applying this program++[CP]

35. Good it make the subject more interesting for teachers and students as well. It teaches students how to be critical thinkers.++[CP]

36. collegiate - it challenges teachers to grow++[CP]

37. Since the advisory program relies mainly on developing skills and awareness to be successful in an academic and social/personal setting, it has been a challenge in keeping the lessons attractive and meaningful to all.[CH]

38. Not good! It's a frustrating experience when it seems as if you're constantly shooting at a moving target.- [added from last question- I guess I would say I do like the freedom to choose as it allows you to really custom tailor lessons to each individual student. It's a lot more work, and often it feels as if things go missing in the overall picture. The one we have now is definitely more flexible, but sometimes I miss the comfort of using someone who has advanced degrees in curriculum design's work, as I'm sure they're better at it than I am.—[CN][CH]

39. The development of the curriculum has been a journey of confusion and frustration, if I'm honest. I don't think that I have had enough training to develop a curriculum and having only a couple of workshops about the conceptual curriculum does not replace a fully trained and qualified group of professionals who know exactly what they are doing creating and developing a functioning, reasonable and logical curriculum. With this being said, however, our department (English) has done a pretty good job of developing some curriculum. As far as the delivery goes, though,

sometimes I can go through an entire unit without even really considering the written curriculum. We have the broad ideas at the beginning of the unit but the follow through and day to day of the delivery sometimes obscures the concept and we forget about it.—[CN][CH]

40. None - as I did not develop anything yet as it is first year teaching Life Science. [NC]

41. When **changing the curriculum** , we sometime experience the fact that we do not have the practical equipment for experiments for THAT year, as orders need to be done the previous year.[CH]

42. What we call the 'conceptual curriculum' is about how we teach - not what we teach. The very nature of mathematics is conceptual and it does not fit neatly into a small(or even large) collection of 'concepts' - They are also all interrelated and connections should be drawn wherever students are able to see them (without overload) - this should not be determined by trying to fit mathematics into limited set of 'conceptual foci'. Any lesson on any day can draw on many, many concepts. This is not to say there isn't some curriculum model that increases its conceptual focus - particularly for teachers more accustomed to an algorithmic approach - that could work for Mathematics - I believe in an investigative approach and if I ever had the time, I would build this more concretely into our collective programme - however sufficient time to make any real progress with this is never available - the 'conceptual curriculum' is an idea that is not 'fully-baked' in regards to mathematics- **and no evidence that anyone on this planet has it 'fully-baked'** To structure mathematics into a conceptual model in any comprehensive and effective programme would take a huge allocation of resources - without it we are just pretending. In the meantime, we have to prioritize mathematics learning.—[CN][CH]

43. Establishing Arabic Conceptual curriculum using Ministry topics, with full influence[NC]

44. We have learned about it last yes and we started applying it.[NC]

45. this is my first year applying it at school[NC]

46. It was a great opportunity to experience how to create and develop curriculum program in general. I had experience in choosing concepts and units, developing scope and sequence, work on rubrics and assessments, for grades 7-10 for both regular Arabic and AFL. ++[CP]
47. You need teachers qualified and interested on Curriculum development. [CH]

**Reflections on Second Cycle Coding:** Some responses are statements that are neither positive/negative/or neutral and represent teachers personal statement in terms of how they interpreted the question. For eg: “little experience”/”PD last year”. Need to have a separate code for these responses in the next cycle coding. Also, some responses indicate frustration while others indicate that teachers are questioning their proficiency in being curriculum developers. This should need a separate category from being included in the “challenge category”.

## **QUESTION 12- THIRD CYCLE CODING**

### **Third Cycle Coding Process:**

Tally each factor indicated by a different color and arrive at final numbers.

### **CODES IDENTIFIED FOR THIRD CYCLE CODING:**

<b>Response Indications</b>	<b>Third-cycle coding</b>
Responses that indicate a clearly positive experience	CP
Responses that indicate a clearly negative experience	CN
For responses that indicate that teachers are challenged by the experience regardless of it being positive or negative	CH
For responses that indicate a neutral experience through a statement	NU
For responses that question teacher proficiency to be curriculum developers	QS
Responses that indicate a personal statement of experience with neither positive or negative tone	PST
Responses that indicate frustration	FR
Any other responses that do not fall in the above categories	OTH

**\*\* Challenge/Frustration/questioning proficiency can be one “category” that can be included within the “clearly negative” category as these do not**

indicate a positive experience. (unless and until these are indicated within a clearly positive response).

**Responses :**

1. I think the conceptual curriculum model gives teacher enough autonomy in deciding what to include and what not to and how to go about teaching and learning. Having said that most of the times it does leave us with a feeling of 'are we doing it right'? It is also quite difficult to make parents understand how this model works as they always want text books and chapter number identified for a 'unit'. [QS]
2. Our conceptual curriculum follows most of what the current language book do. There is a logical scaffolding to teaching a language that we also apply in our curriculum. Pretty good experience so far after a little bit of adapting to the "no-book" rule. ++[CP]
3. It's basically forcing something that should not be there. --[CN]
4. Some topics are easier to link to some concepts while others can be challenging. Not all students can grasp the concept as quickly as others Some students get confused as whether they need to learn the concept or the topic. They don't realize that topics fit under the "umbrella" of a particular concept.[CH]
5. Highly experienced from previous school. Do it instinctively.[PST]
6. PD last year.[PST]
7. The building and rebuilding of the curriculum has been a long road. I am happy to have been involved in it, but also to be finished with it. Each unit is reviewed yearly.[PST][CH]
8. Not everyone is on board with the conceptual curriculum. Other school districts hire professionals to develop curriculum for them. I do not think that most teachers at this school have the experience to develop a curriculum on their own.[QS]
9. Seems to be very structured and has little room for change.[PST+CN]

10. The curriculum is repeatedly written and rewritten.[PST +FR]
11. Limited to what was expected of us when given time. [PST]
12. Its okay[NU]
13. Great, but I don't actually develop or deliver it in any normal way. [PST]
14. it has been a massive frustration and at times a waste of time. when many schools have built and used a PE curriculum with great success for many years.--[CN][FR]
15. Very little.[PST]
16. It was frustrating at first, because it was so prescriptive in the concepts that we were given to work with. We didn't have a choice and the concepts were driving the curriculum and didn't always fit with the topics. Now since redoing the history curriculum we have been given more flexibility in which concepts we want to use with the content which we feel is important to prepare kids for the DP program, and that has been easier to work with.—[CN][FR]
17. I haven't had much experience with the program considering I am new, but we have tried to make it a little more focused on some of the concepts when they deviate too far. [PST]
18. Time consuming. When I taught in Canada the curriculum is set out for you, and you can still choose your own concepts, but over all, I think the school asks too much from the teacher to plan curriculum. People who plan curriculum are "masters" of their specialty, and plan for a province or a state as a whole. —[CN][QS]
19. Not very much as I have only been here for a year. I have found what I have encountered difficult to implement effectively, especially when working as part of a team. —[CN][CH]
20. We adapt it continually so I feel like it is constantly being developed.[NU][FR]



21. I find it really **difficult to organize** mathematical concepts around a logical unit or under terms like change, shape and relationships. Math is usually taught in a sequence of concepts.[CH]
22. I have been involved in the development of it every year.[PST]
23. The initial period where the CC was introduced was **quite difficult**. On a whole school planning level I feel most staff **were unsure** of what a CC was. The last two years I have gained a lot more clarity on what a CC should look like and contain. I am far more **confident now** that I was a couple of years back. The delivery of content was never an issue but always second guessing if I was building the curriculum correctly was a hovering thought.[CH][QS]
24. One year working with GAIS was a start to understand the idea and try to practice it in my teaching style.[PST]
25. The experiences vary; the variables include each student I teach. Since students have such diverse learning styles and abilities, students receive concept based instruction differently. Most of my experiences have been **positive and even liberating**.++[CP]
26. I was Department Head in English when we introduced the CC. It **took some time to** get my head around the principles and construction. Atlas helps to clarify expectations.[CH]
27. Little - I've only taught one year of middle school in the 4 years I've been here. The conceptual curriculum is similar to the philosophy of my home country curriculum though - it can be a little airy fairy at times, I worry that not all. [PST]
28. I **enjoy the freedom**, but this **coupled with the responsibility** of ensuring it is being delivered at the appropriate level / complexity. In a national system this would all be decided, which is restricting, but the responsibility is also removed. I find that many teachers find this quite difficult to deal with.[NU][CH]
29. Each year we re-evaluate the lessons, create new ones, and expand on what we taught the year before.[PST]

30. **Frustrating.** Give us a solid example of how a conceptual curriculum in languages is taught in other schools (not just on paper, but in actual practice) and you will make believers out of us. After four years of working with the conceptual curriculum, I am still unsure of how to teach a grade 7 student who is learning numbers, colors, school subjects, and conjugating verbs how that is all tied in to their "identity," or "relationships" or "connections". Again, on paper, it all looks and sounds great. But in reality, I have yet to see a solid, convincing example of how this is done in the foreign languages.--[CN][FR]
31. I have been involved in developing and implementing conceptual curriculum for a number of units and grade levels both as a team and individually. In addition, I have attended a number of PD sessions about developing and implementing c.c.[PST]
32. When I started at GAIS there WAS no English curriculum and so we had to build it entirely from scratch. It was definitely **a learning experience** in terms of organizing assessments, topics, outcomes and texts - having to think both horizontally and vertically at the same time was a bit challenging. But over the years we have streamlined our curriculum to be both rigorous and competitive - it is one that prepares students well for the difficulties of both the IB and university level. It does not lend itself to "gimme" marks - students have to put the effort in to succeed.++[CP]
33. **After 4 years at the school, I feel very confident** in the way I deliver the program. I constantly change my content in order to cater to all students.++[CP][*after 4 years?*]
34. **Good.** This is my second year applying this program++[CP]
35. **Good** it make the subject more interesting for teachers and students as well. It teaches students how to be critical thinkers.++[CP]
36. **collegiate** - it challenges teachers to grow++[CP]
37. Since the advisory program relies mainly on developing skills and awareness to be successful in an academic and social/personal setting, it

has been a challenge in keeping the lessons attractive and meaningful to all.[CH]

38. Not good! It's a frustrating experience when it seems as if you're constantly shooting at a moving target.- [added from last question- I guess I would say I do like the freedom to choose as it allows you to really custom tailor lessons to each individual student. It's a lot more work, and often it feels as if things go missing in the overall picture. The one we have now is definitely more flexible, but sometimes I miss the comfort of using someone who has advanced degrees in curriculum design's work, as I'm sure they're better at it than I am.—[CN][FR]

39. The development of the curriculum has been a journey of confusion and frustration, if I'm honest. I don't think that I have had enough training to develop a curriculum and having only a couple of workshops about the conceptual curriculum does not replace a fully trained and qualified group of professionals who know exactly what they are doing creating and developing a functioning, reasonable and logical curriculum. With this being said, however, our department (English) has done a pretty good job of developing some curriculum. As far as the delivery goes, though, sometimes I can go through an entire unit without even really considering the written curriculum. We have the broad ideas at the beginning of the unit but the follow through and day to day of the delivery sometimes obscures the concept and we forget about it.—[CN][FR]

40. None - as I did not develop anything yet as it is first year teaching Life Science. [PST]

41. When changing the curriculum, we sometime experience the fact that we do not have the practical equipment for experiments for THAT year, as orders need to be done the previous year.[PST]

42. What we call the 'conceptual curriculum' is about how we teach - not what we teach. The very nature of mathematics is conceptual and it does not fit neatly into a small(or even large) collection of 'concepts' - They are also all interrelated and connections should be drawn wherever

students are able to see them (without overload) - this should not be determined by trying to fit mathematics into limited set of 'conceptual foci'. Any lesson on any day can draw on many, many concepts. This is not to say there isn't some curriculum model that increases its conceptual focus - particularly for teachers more accustomed to an algorithmic approach - that could work for Mathematics - I believe in an investigative approach and if I ever had the time, I would build this more concretely into our collective programme - however sufficient time to make any real progress with this is never available - the 'conceptual curriculum' is an idea that is not 'fully-baked' in regards to mathematics- and no evidence that anyone on this planet has it 'fully-baked' To structure mathematics into a conceptual model in any comprehensive and effective programme would take a huge allocation of resources - without it we are just pretending. In the meantime, we have to prioritize mathematics learning.—[CN][CH]

43. Establishing Arabic Conceptual curriculum using Ministry topics, with full influence[PST]

44. We have learned about it last year and we started applying it.[PST]

45. this is my first year applying it at school[PST]

46. It was a great opportunity to experience how to create and develop curriculum program in general. I had experience in choosing concepts and units, developing scope and sequence, work on rubrics and assessments, for grades 7-10 for both regular Arabic and AFL. ++[CP]

47. You need teachers qualified and interested on Curriculum development. [PST+QS]

## **TALLYING OF CODES**

CLEARLY POSITIVE [CP]	- IIII [8]
CLEARLY NEGATIVE [CN]	- I [1]
QUESTIONING PROFICIENCY [QS]	- II [2]
CHALLENGING [CH]	- IIII [4]
NEUTRAL [NU]	- I [1]
PERSONAL STATEMENT [PST]	- IIII IIII-III-II [17]
OTHER [OTH]	-

**TOTAL = 33**

#### **RESPONSES THAT INDICATE COMBINATION OF THE ABOVE CODES**

ST+CH	- I [1]
ST+CN	- I [1]
ST+FR	- I [1]
CN+FR	- IIII-[5]
CN+QS	- I [1]
CH+CH	- II [2]
NU+FR	- I [1]
CH+QS	- I [1]
NU+CH	- I [1]

**TOTAL = 14 TEACHERS**

## **Appendix 18: Coding Sheets for questions 13,14 and 15**

### **QUESTIONS 13, 14 AND 15- FIRST CYCLE CODING**

**Question 13: What do you think are the strengths of the conceptual curriculum created by the school?**

**Question 14: What do you think are the weaknesses of the conceptual curriculum created by the school?**

**Question 15: If you were given a choice to choose between teaching a prescriptive curriculum (where you are given the scope and sequence, the course material and the books/resources) and a curriculum framework such as the one in the current school which is more flexible what would you prefer? Why?**

#### **Coding Process:**

1. Juxtaposing “Strength”; “Weakness” and choice of “Prescriptive curriculum versus Flexible framework” .
2. Highlight phrases that indicate strengths/weaknesses of the conceptual curriculum as described by the teachers and choice of teachers (prescriptive/flexible framework).

1. I think a curriculum that gives a good balance of both would be ideal. As teachers we are sometimes unable to make the right choice of whether this concept or topic needs to be included/excluded so some sort of framework that articulates some non-negotiable would be very helpful, as in the PYP. “The conceptual curriculum is quite broad in that everything is left to the teacher’s choice. I may think I am doing a great job, someone else may come along after a year and think ‘this teacher had no clue what she was doing’ and change everything. How this will impact student learning is what we need to see then”. [did not answer strength/weakness2]
2. It is flexible and adaptable enough to be use with any group and level. It allows for differentiation within a level.

- **A bit vague at time.** Some concepts are difficult to fit with all the subjects (systems for instance). **"A big deal is made out of** it when it is just another type of curriculum, better than some, worse than others."
  - There are good things in both. Using a book is easier for the teacher (documents and exercises are provided) and reassures the students and their family. On the other hand, most teachers will add to it just like for the conceptual one. I have taught with both curriculum and **don't feel one is really better than the other** in the end despite the slightly bigger amount of work for the conceptual curriculum, at least when it comes to languages.
3. **I do not like it at all.**
- **It does not make sense to have conceptual curriculum** for certain subjects. It's like wanting to make something fit that will not fit, and doing just kills its actual beauty. Conceptual curriculum is not a good idea for every subject.
  - The **first because** it makes more sense. The second requires administration that understands that conceptual curriculum is NOT for every subject.
4. The questioning breakdown into factual, **debatable and conceptual helps create structure** to some non linear topics.
- Different department should be encouraged to work on similar concepts to make more **transferable** for the students. Just like PYP work on themes.
  - I don't mind working on the conceptual curriculum provided that it is more **unified among departments** as I mentioned in the previous question.
5. **"No one seems to really know what it is."** We have adopted our own version of a program we should have just used in total, as it is complete.

We are not adept at informing the staff, logically and timely, as to what is happening and what should be happening.

- A true concept-based curriculum, as designed by Erickson, is both! [respondent skipped strength]
6. Few. I much prefer working directly with the MYP curricular framework. “Why are we creating all of this work when a very well researched and established program - that directly leads into our grades 11 and 12 - such as MYP already exists?”
- “Too many variances” by having too many different inputs. Lack of a clear leader with curriculum.
  - The latter. Already stated above.
7. Standards based, conceptually minded, and scaffolded through 7-10 to prepare the students for IBDP.
- Clarity of what conceptual curriculum is.
  - I am pleased with the curriculum at GAIS. It allows for flexibility which is needed in an international school.
8. I think math is very conceptual by nature. It has been difficult to get training in math. I think it is more suited for english and the social sciences.
- Buy-in and the varying levels of expertise that teachers bring to the table.
  - Prescriptive curriculum like the IB.
9. Gets students ready for the IB program.
- Students are learning concepts that are preparing them for an IB course instead of studying a broader range of topics.
  - I have taught both ways and I enjoy the flexible of a concept curriculum, however, having too much freedom sometimes leaves gaps in students education. A prescriptive curriculum insures that students follow a strict program and leaves no gaps in their education.



10. A Teacher can easily relate subject material across time and region to discuss and make "real" the material.

- There is too much time spent writing new curriculum.
- Not sure.

11. I feel that most teachers including myself in the science program do not feel that it is particularly good with respect to grade expectations.

- Too abstract and cannot be connected easily to IB.
- Prescriptive with some flexibility.

12. It helps to integrate several topics

- It doesn't prepare students very well towards traditional exams like SAT
- It depends on the topic. In some cases prescriptive curriculum is better than conceptual curriculum.

13. There is not much disagreement.

- Maybe not much discussion about it. Kind of of the flip-side of its strength.
- I think that this one is more constructive in the long-term.

14. I think some of the strengths are the different ways students and teachers look at a problem or a task. it is no longer cookie cutter roles and assessments that give students the best chance to succeed.

- too much choice can be difficult at a younger age. I think students still need a base in how to gain knowledge, how to apply it and how to analyze the information before we can ask them to do it.
- I would rather have a scope and sequence. I enjoy having a program that fits the schools needs with it being revised on a continual basis. I think a mix of the two could be something that would be easier on the teachers so that there is ground work that they can spring board from.

15. Flexibility is always appreciated, as long as the longer-term picture is kept in view.[skipped strength and weakness]

- 

16. I think the ideal curriculum is a combination of the two, and it's impossible to adequately prepare students to do the DP at the 11th and 12th grade level without being somewhat prescriptive. I think the best course of action is to figure out what content needs to be covered and then teach it from a conceptual model. [skipped strength and weakness]

17. I think that it encourages students to continually be thinking about something while they are working on diverse aspects of learning. Students should always be questioning things and that is very critical especially when it comes to their learning.

- I think at times it can be a little constraining in that the students aren't able to learn more about a variety of information pertaining to the subject.

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18. We can take it in any direction.

- "Teachers are creating the curriculum, and that should be done by someone who has 25 years plus experience in the field."

- I would prefer a scope and sequence that is already set out. This way you know that all the students are receiving the same education.

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- I am not sure I agree with the premise - a scope and sequence need not be prescriptive. If I know I need to teach Romanticism, that still gives leeway as to what I cover and how. There are advantages and disadvantages to each.

- Our students do not learn enough content, for whatever the reasons may be. They are expected to reason their way through an inquiry approach when they might be missing the basics. It's frustrating - for them and for teachers. There must be a way to incorporate more content into the framework, more knowledge base. We seem to be discouraged from this, however.

21. The weaknesses of the conceptual curriculum are that students don't relate to often to the themes of unit. It is sometimes challenging to create one guiding question that will encompass all content for a given unit.  
[skipped strength]

- I would prefer a prescriptive curriculum under the assumption that adequate feedback and consideration has been given to the course with changes being made to meet the needs of the students.
22. It is fairly well documented and “we have the tools to be able to vertically and horizontally align the curriculum.”
- “Many teachers do not possess the skills to teach curriculum effectively” in a conceptually based format.
  - More flexible. We need to make it more flexible in order to build the bridge between PYP and IB, and take into account the overall strengths and weaknesses students have based on data and observations.[teachers 11 and 12; 1 year in the school]
23. I think it allows teachers to be pedagogical leaders and have a lot of freedom in terms of content.
- “There needs to be significant teacher training involved in writing it correctly and this is a very weak point for our school.”
  - AT this point in time I would choose CC but when it was introduced I would have chosen something more prescriptive because I didn’t feel support during the introduction and felt I didn’t have the skill necessary to develop curriculum on my own having just graduated from teacher college. It was a lot of responsibility to place of young inexperienced teacher and i felt this was very unfair.[ 10-12; 5 years in school]
24. compelling questions help the students for the critical thinking.
- curriculum frame work. [skipped strength] [ 7-8; 1 year in school]
25. Both should be adopted. School systems always wish to limit their options as though they can find a magic wand that can solve every issue.

Why not allow your teachers to utilize the model that fits the particular class?[skipped both strength and weakness] [7-11; 1 year in school]

26. From Harvard's' Project Zero to Gardner to Wiggins to Ericson, the CC is the way forward in education (but to succeed there needs to be common, agreed upon, assessments).

- Teachers have to authentically buy-in to the CC. If not, it is an exercise in filling out forms. We NEED a full time curriculum coordinator who keeps tabs on the progress being made in departments.
- I prefer a prescriptive curriculum in most cases. The IB is ultimately prescriptive (with conceptual underpinnings), and the system simply works.[ 11-12; 5].

27. The quality of the learning is greater

- "Teachers aren't as accountable for what they're teaching. No matter what, they must arrive in Grade 11 with a specific skill set and content knowledge if they are to succeed. This takes time - the conceptual curriculum involves more time consuming learning experiences/activities than a more prescriptive curriculum would. Don't get me wrong I think the quality of learning is much better but often the time restraints are an issue. [11 -12; 4]
- A flexible framework - you have to be able to be given the room to adapt to the needs of the students.

28. Being able to focus on skills that are transferrable and multi departmental.

- too much freedom. Some teachers go off on topics that they find interesting without sticking to what actually needs to be covered for students to be successful in the IB.

- A mixture, As stated before having the scope and sequence and complexity of skills required mapped out by a ministry of education is a very helpful thing. It ensures that all students are roughly on the same path. many students that transition in and out of GAIS have a hard time. That being said I'd really enjoy the freedom to at it gives teachers and students in deciding where a topic or unit might go. This can also be achieved in national curriculums and the L.Os are becoming increasingly generic and able to be applied to multiple topics etc. [10-12; 4]

29. We NEED to and DO NOT have enough communication with elementary for gr 5-6 coming up into gr 7-8. The curriculums are SO VERY different, **More accountability from department heads/admin?** I think the workshops/information are great and it gets our department thinking about CC and we work hard developing, (but then there isn't much motivation to continue and complete what we start, until the next workshop/meeting.)

- I prefer our conceptual curriculum, and choice in teaching, Although, sometimes I feel like in our department we are "re-creating the wheel" I love the idea of teaching through lenses, but for the basics it would be nice to follow a structured plan.[7-11; 4]

30. Based on my subject, I **have not experienced any strengths.**

- **"Frustrating. Give us a solid example of how a conceptual curriculum in languages is taught in other schools (not just on paper, but in actual practice) and you will make believers out of us. After four years of working with the conceptual curriculum, I am still unsure of how to teach a grade 7 student who is learning numbers, colors, school subjects, and conjugating verbs how that is all tied in to their "identity," or "relationships" or "connections". Again, on paper, it all looks and sounds great. But in reality, I have yet to see**

a solid, convincing example of how this is done in the foreign languages".[ see ans for no 12]

- Both. Speaking solely on behalf of my subject, a curriculum framework works once students have acquired enough language skills to tackle a conceptual curriculum. But until that happens, a prescriptive curriculum sure would make new, incoming teachers' lives a lot easier.[7-12; 4].

- 

31. -Flexibility -Adaptability -Relevant/Up to date Material

- -Material may be delivered differently to students through differing instruction. -Developing of curriculum is time consuming and is always a work in progress -Concepts need to be developed thoroughly and require constant changes

- Both approaches definitely have benefits and drawbacks. Therefore, I think that a combination of both would be ideal.[8,10,12; 2].

32. Not all the departments see the value in it or use it. While it works well for English, it is not as user friendly for other departments.[skipped positive]

- Flexible. I like having the ability to adapt to the classroom/students and even teacher interests. I don't believe English is a subject that lends itself to prescribed curriculum as there is no definitive right/wrong answer.[9,11,12; 5]

33. Not much coloboration between departments.[skipped positive]

- I don't think prescriptive curriculum is beneficial for all students. Especially the fact that we are an international and all leaners come from different backgrounds, flexibility is important. Teachers need to be culturally responsive.[9-12; 4]

-

34. Information are better reach to students. Students understand better Students are to be longlife learners

- More sessions are required in Islamic studies, since there is no examples.
- Both are good to me. It is good to have enough resources and materials, and at same time to be flexible for change if needed[7-9; 3]

35. - It teaches students the higher order thinking skills.

- We need more sessions especially in Islamic Studies since that all samples is for other subjects.
- I prefer to use both depending on the topics. [9-12; 3]

36. timeliness, flexibility,

- Lack of basic skills/objective assessments - lots of project-based assessments would be better crafted if the basic concepts were "drilled" skill acquisition of basic concepts should be a focus of lower grades (7/8/9) - their "creative" work is often uninspired and undisciplined due to a lack of structured skill building
- The one created in the school is aided by our varied experiences with best practices in other schools, curriculums, and is designed for our particular students and their path. We are able to adjust as needed to cover a gap from the previous quarter or year - it allows for us to create a timetable for authentic tasks relevant for our students, and it allows us to "diagnose" areas for growth and design lessons accordingly. We don't create in a vacuum, we use resources from the internet, each other, USA curricula, the IB - we're not reinventing the wheel, but we're building a vehicle that our own students can operate. [7-12; 1]



37. It links all subjects and gives a holistic approach to learning. It also allows for scaffolding to take place as the students go to higher grades because it builds on their previous knowledge.

- Even though it has come a really long way, there are still a few gaps that need to be filled, in order to maintain this smooth upward transition.
- Conceptual curriculum, as it allows for growth and development of the program. Scope and sequence would be too rigid, and does not allow for enough flexibility to differentiate.[10-12; 1]

38. Students excel in talking one on one about 'big picture' ideas.

- Very weak in skills/facts.
- I guess I would say I do like the freedom to choose as it allows you to really custom tailor lessons to each individual student. It's a lot more work, and often it feels as if things go missing in the overall picture. The one we have now is definitely more flexible, but sometimes I miss the comfort of using someone who has advanced degrees in curriculum design's work, as I'm sure they're better at it than I am. [7-12;4]

39. People who don't really know what they are doing are writing curriculum [skipped positive]

- When I first came to this school I would have definitely wanted a prescriptive curriculum. I appreciate the freedom and flexibility of our current curriculum but I sometimes wonder if there are not many gaps in the courses. How do we find out where the gaps are and how do we know that we are, in fact, meeting the needs of the students? I wonder how good our curriculum is. I have "pride" in it because we have all created it, but I also doubt how

good it is because I know just how unqualified I am to write an official curriculum document. [9-12; 6]

- 

40. no communication with the PYP and High School teachers of what is required. We have certain expectations of what the students should know and they arrive with too much knowledge in certain areas and NO KNOWLEDGE about other aspects. Also there is no communication between the Geography and Sciences - there is Earth Science that is overlapping and thus a waste of time or they can work half and half and not giving students the same work in two subject areas. [skipped positive]

- Prescriptive - then we can measure our students and our standards with the rest of the students in the world that is taking that curriculum. It mean we can then spend more time in making our lessons more interesting and challenging and we can differentiate more with our upper and lower students. That also mean we will cover in depth how much is needed for each level and then from year to year we can improve our teachings and will be able to gauge must more how our students are doing. Even prescriptive curriculums give you enough degrees of freedom and you can still use the teaching methods you prefer. That will eliminate the problem where the PYP develop their own programme without knowing what students should know by the time they arrive in Gr 7. At this moment they just decide and just teach what they are comfortable with without finding out what we need to have the students understand and be able to know when arriving in Gr 7.

- Thanks for having a place to say this as I feel there is no way to say this without "hurting" feelings. Which I understand as some teachers been here longer have worked very hard to establish what we have on G-drive etc. I just think the turn-over of teachers as it is a young school and the youngish teachers that was

left in charge just did not get to that level yet to see the whole picture. [9,11,12; 1]

- 

41. There needs to be a better connection between Elementary and Middle school, when planning their curriculum. Concepts that students NEED to know when they enter Gr 7 is sometimes to just not up to standard.... [skipped positive]

- I'll prefer a scope and sequence as two teachers, teaching the same concept, concentrate on different parts. That makes it a huge problem when writing exams or tests, since you constantly have to change the marks scheme if a teacher did not cover a particular part of the chosen concept. [7, 8.10; 2]

42. The philosophy of writing conceptual focus into the curriculum is great - again this could be established by an investigative approach (which is the route I have always looked to take without time to implement anything broadly and formally - it should also not be taken for granted that all teachers clearly understand what constitutes good investigation).

- Insufficient allocation of resources - development time, inadequate training (very rudimentary - even our visiting 'expert' had little for math (and 1 hr between Math and Science)). It is a bit of a pretense that we can charge ahead to make something of quality with the basis we have - significantly more resource allocation should go to this if we are honestly expecting quality. I would also note that I would not be willing to compromise a solid Math programme in pursuit of something flimsy without demonstrated benefit.
- Again I believe the philosophy of the 'conceptual curriculum' is about how we teach, not what we teach. I will teach Mathematics the same way regardless of the prescribed curriculum. The beauty of mathematics is in the underlying mathematical ideas of structure

and relationships which are present in every single mathematical experience (hence it is a nonsense of trying to divide up the curriculum by concept and conceptual lens at distinct times) - Every 'conceptual lens' can be used in every single lesson - it is contrived and limiting to try to divide up mathematics in this way. More important is that we address these somewhere - as most curricula would already try to do somewhere - of course we can increase the focus on it - again I think in Mathematics that should look like an investigative approach. This can be integrated without changing content/renaming units/making specific broad concepts the main focus at specific times (this will already happen!) Back to the question, I believe the goal of the conceptual curriculum can be achieved without even having something called a 'conceptual curriculum'. In Mathematics, our students must learn to use the same mathematics as students mostly anywhere - but we should strive to enable our students to gain and develop initiative insight, and enjoyment of the subject - I have never taught somewhere that I have felt stifled to teach math in a limited fashion (excepting inescapability of external exam groups) - as our curriculum is prescribed (by ourselves) so in short I have no preference..[11-12; 3]

43. Curriculum Framework, as it is much flexible in resources, timing, and different materials [7,9,10; 5] [skipped both strength and weakness]

44. - It teaches students the higher order thinking skills.

- We need more sessions on conceptual curriculum
- Both are good. They fit students needs. [7,10,11,12; 4]

45. teaching the student high order thinking skills using critical thinking students take a more active part in class discussions

- More sessions are required for Islamic subject

- Both are good, because they fit students needs [8,9,10; 1]

46. It gives more opportunities for students to be critical thinkers. It gives teachers opportunities to think outside the box.

- Teachers are not so well prepared for it yet, in spite of the amazing workshop we had last year but teachers still need more workshops and more time to implement the conceptual curriculum correctly in their classroom. The conceptual curriculum is convenient for some classes more than others. Like language A classes versus language B
- Each one of them has it's positives and negatives, on the long run the conceptual curriculum will be a prescriptive one because it is so difficult to change units, scope and sequence. .... every year. Its good to have a constant frame work but adjustable units! Finding enough resources for some subjects is really difficult. [9-12; 7]

47. It is a very helpful guide for students and teachers (if it is used/implemented in class )

- I think all departments should know in how other departments work/follow curriculum Also an standarization of units development Supervision by Currulum knowledgeable people/expertise
- second option [ 10-12; 5]

## QUESTIONS 13, 14, 15- SECOND CYCLE CODING

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Identify emerging themes from the highlighted phrases in first cycle coding and note it down below each response (in blue)

1. I think a curriculum that gives a **good balance of both** would be ideal. As **teachers we are sometimes unable to make the right choice** of whether this concept or topic needs to be included/excluded so some sort of framework that articulates some non-negotiable would be very helpful, as in the PYP. “The conceptual curriculum is quite **broad in that everything is left to the teacher's choice**. I **may think I am doing a great** job, someone else may come along after a year and think 'this **teacher had no clue what she was doing**' and change everything. How this will **impact student learning** is what we need to see then”.  
[did not answer previous 2]

- Questioning Proficiency
- Questioning impact on student learning
- Questioning teacher consistency

2. **It is flexible and adaptable enough to be use with any group and level. It allows for differentiation within** a level.

- **A bit vague at time.** Some concepts are difficult to fit with all the subjects (systems for instance). “**A big deal is made out of** it when it is just another type of curriculum, better than some, worse than others.”
- There are good things in both. Using a book is easier for the teacher (documents and exercises are provided) and reassures the students and their family. On the other hand, most teachers will add to it just like for the conceptual one. I have taught with both

curriculum and don't feel one is really better than the other in the end despite the slightly bigger amount of work for the conceptual curriculum, at least when it comes to languages.

- Flexible
- Allows differentiation
- Vague
- Assurance when prescriptive

•

3. I do not like it at all.

a. It does not make sense to have conceptual curriculum for certain subjects. It's like wanting to make something fit that will not fit, and doing just kills its actual beauty. Conceptual curriculum is not a good idea for every subject.

b. The first because it makes more sense. The second requires administration that understands that conceptual curriculum is NOT for every subject.

i. Not for all subjects-artificially fitting something

•

4. The questioning breakdown into factual, debatable and conceptual helps create structure to some non linear topics.

a. Different department should be encouraged to work on similar concepts to make more transferable for the students. Just like PYP work on themes.

b. I don't mind working on the conceptual curriculum provided that it is more unified among departments as I mentioned in the previous question.

• Requiring inter-disciplinary planning

•

5. "No one seems to really know what it is." We have adopted our own version of a program we should have just used in total, as it is complete.

We are not adept at informing the staff, logically and timely, as to what is happening and what should be happening.

- a. A true concept-based curriculum, as designed by Erickson, is both! [respondent skipped positives]

- i. Questioning proficiency

- ii. "our own version"

- 

6. Few. I much prefer working directly with the MYP curricular framework. "Why are we creating all of this work when a very well researched and established program - that directly leads into our grades 11 and 12 - such as MYP already exists?"

- a. "Too many variances" by having too many different inputs. Lack of a clear leader with curriculum.

- b. The latter. Already stated above.

- i. Few strengths- not mentioning what

- ii. Too many variances

- iii. Lack of clear leader

- 

7. Standards based, conceptually minded, and scaffolded through 7-10 to prepare the students for IBDP.

- a. Clarity of what conceptual curriculum is.

- b. I am pleased with the curriculum at GAIS. It allows for flexibility which is needed in an international school.

- i. Standard based

- ii. Conceptually minded

- iii. Scaffold to prepare for 7-10

- iv. Lack of clarity

8. I think math is very conceptual by nature. It has been difficult to get training in math. I think it is more suited for English and the social sciences.



- a. Buy-in and the varying levels of expertise that teachers bring to the table.
  - b. Prescriptive curriculum like the IB.
- i. Difficulty in getting training
- ii. Varying levels of expertise
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- 9. Gets students ready for the IB program.
  - a. Students are learning concepts that are preparing them for an IB course instead of studying a broader range of topics.
  - b. I have taught both ways and I enjoy the flexible of a concept curriculum, however, having too much freedom sometimes leaves gaps in students education. A prescriptive curriculum insures that students follow a strict program and leaves no gaps in their education.
- i. Prepares students for the IB
- ii. Only focused in preparing for the IB instead of a broad range of topics
- 
- 10. A Teacher can easily relate subject material across time and region to discuss and make "real" the material.
  - a. There is too much time spent writing new curriculum.
  - b. Not sure.
- i. Allows teachers to relate material across time and region
- ii. Too much time spent on writing curriculum
- 
- 11. I feel that most teachers including myself in the science program do not feel that it is particularly good with respect to grade expectations.
  - a. Too abstract and cannot be connected easily to IB.
  - b. Prescriptive with some flexibility.
- i. Too abstract
  - ii. Not good with grade expectations
- 12. It helps to integrate several topics

- a. It doesn't prepare students very well towards traditional exams like SAT
  - b. It depends on the topic. In some cases prescriptive curriculum is better than conceptual curriculum
- i. Integrate several topics
- ii. Does not prepare students for traditional exams like SAT
- 13. There is not much disagreement.
  - a. Maybe not much discussion about it. Kind of the flip-side of its strength.
  - b. I think that this one is more constructive in the long-term.
- i. More constructive in the long term
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- 14. I think some of the strengths are the different ways students and teachers look at a problem or a task. it is no longer cookie cutter roles and assessments that give students the best chance to succeed.
  - a. too much choice can be difficult at a younger age. i think students still need a base in how to gain knowledge, how to apply it and how to analyze the information before we can ask them to do it.
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- i. No longer cookie cutter roles for teacher and student
- ii. Assessments give students better change to succeed
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- 15. Flexibility is always appreciated, as long as the longer-term picture is kept in view.[skipped strength and weakness]
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b. I would much prefer one that is more flexible in allowing us to choose what we want to teach. It can become very monotonous and constraining when you are only allowed to work with a set amount of materials. Having the free range allows us to be creative and work with what we have and know to do.

i. Encourages to continually be thinking

ii. Promotes students to think

iii. Constraining in that students aren't able to learn more about a variety of information

•

18. We can take it in any direction.

a. "Teachers are creating the curriculum, and that should be done by someone who has 25 years plus experience in the field."

b. I would prefer a scope and sequence that is already set out. This way you know that all the students are receiving the same education.

i. Can be taken in any direction

ii. Questioning expertise

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a. In terms of science, I think it could be used to combine concepts that shouldn't be and potentially confuse students. **A lot of the topics we cover are very detailed, so attempting to categorize them by concept would inefficient.**

b. I prefer the more flexible option as it provides more ways that an idea can be covered. Attempting to adhere to scope/sequence can be limiting when the students express interest in something other than what is in the current curriculum.

i. **Questioning understanding it versus practically applying it.**

ii. **Categorizing learning by concepts would make it inefficient**

- 

20. Conceptual curriculum **works easily for English instruction** - it's all about themes and concepts.

a. The assessment protocols - too few, not enough transparency, BSP doesn't work, grading 1-7 is unwieldy, doesn't translate well. Even IB doesn't assign numbers of 1-7 until after all the components are complete, the various totals for criteria sheets added up, and a number out of 100 is reached

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c. Our students do not learn enough content, for whatever the reasons may be. They are expected to reason their way through an inquiry approach when they might be missing the basics. It's

frustrating - for them and for teachers. There must be a way to incorporate more content into the framework, more knowledge base. We seem to be discouraged from this, however.

- i. Works well for English
- ii. Assessment protocols not transparent enough
- iii. Premise disagreeable

21. The weaknesses of the conceptual curriculum are that students don't relate to often to the themes of unit. It is sometimes **challenging to create one guiding question** that will encompass all content for a given unit.  
[skipped positive]

I would prefer a prescriptive curriculum under the assumption that adequate feedback and consideration has been given to the course with changes being made to meet the needs of the students.

- Students don't relate to the themes

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22. It is fairly well documented and "we **have the tools to be able to vertically and horizontally align the curriculum.**"

a. **"Many teachers do not possess the skills to teach curriculum effectively" in a conceptually based format.**

b. More flexible. We need to make it more flexible in order to build the bridge between PYP and IB, and take into account the overall strengths and weaknesses students have based on data and observations.[teachers 11 and 12; 1 year in the school]

- i. Fairly well documents
- ii. Have the tools for vertical and horizontal alignment

c. Questioning proficiency

•

23. I think it **allows teachers to be pedagogical leaders** and have a lot of freedom in terms of content.

a. **"There needs to be significant teacher training involved in writing it correctly and this is a very weak point for our school."**

b. AT this point in time I would choose CC but when it was introduced I would have chosen something more prescriptive because I didn't feel support during the introduction and felt I didn't have the skill necessary to develop curriculum on my own having just graduated from teacher college. It was a lot of responsibility ti place of young inexperienced teacher and i felt this was very unfair.[ 10-12; 5 years in school]

i. Allows teachers to be pedagogical leaders

ii. Lot of freedom in terms of content

iii. Need for significant training

24. compelling questions help the students for the critical thinking.

a. curriculum frame work. [skipped positive] [ 7-8; 1 year in school]

b. fosters critical thinking

25. Both should be adopted. School systems always wish to limit their options as though they can find a magic wand that can solve every issue. Why not allow your teachers to utilize the model that fits the particular class?[skipped both] [7-11; 1 year in school]

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26. From Harvards' Project Zero to Gardner to Wiggins to Ericson, the CC is the way forward in education (but to succeed there needs to be common, agreed upon, assessments).

a. Teachers have to authentically buy-in to the CC. If not, it is an exercise in filling out forms. We NEED a full time curriculum coordinator who keeps tabs on the progress being made in departments.

b. I prefer a prescriptive curriculum in most cases. The IB is ultimately prescriptive (with conceptual underpinnings), and the system simply works.[ 11-12; 5]

•

27. The quality of the learning is greater

a. “Teachers aren't as accountable for what they're teaching. No matter what, they must arrive in Grade 11 with a specific skill set and content knowledge if they are to succeed. This takes time - the conceptual curriculum involves more time consuming learning experiences/activities than a more prescriptive curriculum would. Don't get me wrong I think the quality of learning is much better but often the time restraints are an issue. [11 -12; 4]

b. A flexible framework - you have to be able to be given the room to adapt to the needs of the students.

i. Quality of learning is greater

ii. Questioning accountability

iii. Conceptual curriculum involves more time consuming learning activities

•

28. Being able to focus on skills that are transferrable and multi departmental

a. too much freedom. Some teachers go off on topics that they find interesting without sticking to what actually needs to be covered for students to be successful in the IB.

b. A mixture, As stated before having the scope and sequence and complexity of skills required mapped out by a ministry of education is a very helpful thing. It ensures that all students are roughly on the same path. many students that transition in and out of GAIS have a hard time. That being said really enjoy the freedom to at it gives teachers and students in deciding where a topic or unit might go. This can also be achieved in national curriculums and the L.Os are becoming increasingly generic and able to be applied to multiple topics etc. [10-12; 4]

- Ability to focus on transferable skills

- Teacher do topics they find interesting that what is needed to be covered for the IB

•

29. We NEED to and DO NOT have enough communication with elementary for gr 5-6 coming up into gr 7-8. The curriculums are SO VERY different, **More accountability from department heads/admin?** I think the workshops/information are great and it gets our department thinking about CC and we work hard developing, (but then there isn't much motivation to continue and complete what we start, until the next workshop/meeting.)

a. I prefer our conceptual curriculum, and choice in teaching, Although, sometimes i feel like in our department we are "re-creating the wheel" I love the idea of teaching through lenses, but for the basics it would be nice to follow a structured plan.[7-11; 4]

i. Questioning accountability

ii. Regular workshops/follow-up to retain motivation

30. Based on my subject, I **have not experienced any strengths.**

a. **"Frustrating. Give us a solid example of how a conceptual curriculum in languages is taught in other schools (not just on paper, but in actual practice) and you will make believers out of us. After four years of working with the conceptual curriculum, I am still unsure of how to teach a grade 7 student who is learning numbers, colors, school subjects, and conjugating verbs how that is all tied in to their "identity," or "relationships" or "connections". Again, on paper, it all looks and sounds great. But in reality, I have yet to see a solid, convincing example of how this is done in the foreign languages".** [ see ans for no 12]

b. Both. Speaking solely on behalf of my subject, a curriculum framework works once students have acquired enough language skills to tackle a conceptual curriculum. But until that happens, a prescriptive curriculum sure would make new, incoming teachers' lives a lot easier.[7-12; 4]

i. No strengths

ii. Only on paper



iii. Still unsure after 4 years

31. Flexibility -Adaptability -Relevant/Up to date Material
- a. -Material may be delivered differently to students through differing instruction. -Developing of curriculum is time consuming and is always a work in progress -Concepts need to be developed thoroughly and require constant changes
  - b. Both approaches definitely have benefits and drawbacks. Therefore, I think that a combination of both would be ideal.[8,10,12; 2]
  - c. Flexibility and adaptability
  - d. Relevant and up to date material
  - e. Time consuming and always work-in-progress
32. Not all the departments see the value in it or use it. While it works well for English, it is not as user friendly for other departments.[skipped positive]
- a. Flexible. I like having the ability to adapt to the classroom/students and even teacher interests. I don't believe English is a subject that lends itself to prescribed curriculum as there is no definitive right/wrong answer.[9,11,12; 5]
  - b. Questioning consistency
  - c. Flexibility
  -
33. Not much collaboration between departments.[skipped positive]
- a. I don't think prescriptive curriculum is beneficial for all students. Especially the fact that we are an international and all learners come from different backgrounds, flexibility is important. Teachers need to be culturally responsive.[9-12; 4]
  - Questioning collaboration between departments
34. Information are better reach to students. Students understand better. Students are to be longlife learners

- a. **More sessions** are required in Islamic studies, since there is no examples.
  - b. Both are good to me. It is good to have enough resources and materials, and at same time to be flexible for change if needed[7-9; 3]
    - Students become life long learners
    - More training
    -
35. - It teaches students the **higher order thinking** skills.
- a. **We need more sessions** especially in Islamic Studies since that all samples is for other subjects.
  - b. I prefer to use both depending on the topics. [9-12; 3]
    - Higher order thinking skills
    - More training
    -
36. **timeliness, flexibility,**
- a. **Lack of basic skills/objective assessments** - lots of project-based assessments would be better crafted if the basic concepts were "drilled" skill acquisition of basic concepts should be a focus of lower grades (7/8/9) - their "creative" work is often uninspired and undisciplined due to a lack of structured skill building
  - b. The one created in the school is aided by our varied experiences with best practices in other schools, curriculums, and is designed for our particular students and their path. We are able to adjust as needed to cover a gap from the previous quarter or year - it allows for us to create a timetable for authentic tasks relevant for our students, and it allows us to "diagnose" areas for growth and design lessons accordingly. We don't create in a vaccuum, we use resources from the internet, each other, USA curricula, the IB - we're not reinventing the wheel, but we're building a vehicle that our own students can operate. [7-12; 1]

- Flexibility
- Lack of basic skill/objective assessments
- Able to design for our particular students
- Enables authentic assessment tasks
- Diagnose and design
- 

37. It links all subjects and gives a holistic approach to learning. It also allows for scaffolding to take place as the students go to higher grades because it builds on their previous knowledge.

a. Even though it has come a really long way, there are still a few gaps that need to be filled, in order to maintain this smooth upward transition.

b. Conceptual curriculum, as it allows for growth and development of the program. Scope and sequence would be too rigid, and does not allow for enough flexibility to differentiate.[10-12; 1]

- Holistic learning
- Allows scaffolding
- Gaps to be filled
- 

38. Students excel in talking one on one about 'big picture' ideas.

a. Very weak in skills/facts.

b. I guess I would say I do like the freedom to choose as it allows you to really custom tailor lessons to each individual student. It's a lot more work, and often it feels as if things go missing in the overall picture. The one we have now is definitely more flexible, but sometimes I miss the comfort of using someone who has advanced degrees in curriculum design's work, as I'm sure they're better at it than I am. [7-12;4]

- Students excel in 'big picture' ideas
- Weak in skills and facts

39. People who don't really know what they are doing are writing curriculum [skipped positive]

a. When I first came to this school I would have definitely wanted a prescriptive curriculum. I appreciate the freedom and flexibility of our current curriculum but I sometimes wonder if there are not many gaps in the courses. How do we find out where the gaps are and how do we know that we are, in fact, meeting the needs of the students? I wonder how good our curriculum is. I have "pride" in it because we have all created it, but I also doubt how good it is because I know just how unqualified I am to write an official curriculum document. [9-12; 6]

- People who don't really know what they are doing are writing curriculum [skipped positive]
- Questioning proficiency
- Questioning "gaps"
- 

40. no communication with the PYP and High School teachers of what is required. We have certain expectations of what the students should know and they arrive with too much knowledge in certain areas and NO KNOWLEDGE about other aspects. Also there is no communication between the Geography and Sciences - there is Earth Science that is overlapping and thus a waste of time or they can work half and half and not giving students the same work in two subject areas. [skipped positive]

a. Prescriptive - then we can measure our students and our standards with the rest of the students in the world that is taking that curriculum. It mean we can then spend more time in making our lessons more interesting and challenging and we can differentiate more with our upper and lower students. That also mean we will cover in depth how much is needed for each level and then from year to year we can improve our teachings and will be able to gauge must more how our students are doing. Even prescriptive

curriculums give you enough degrees of freedom and you can still use the teaching methods you prefer. That will eliminate the problem where the PYP develop their own programme without knowing what students should know by the time they arrive in Gr 7. At this moment they just decide and just teach what they are comfortable with without finding out what we need to have the students understand and be able to know when arriving in Gr 7.

b. Thanks for having a place to say this as I feel there is no way to say this without "hurting" feelings. Which I understand as some teachers been here longer have worked very hard to establish what we have on G-drive etc. I just think the turn-over of teachers as it is a young school and the youngish teachers that was left in charge just did not get to that level yet to see the whole picture.

[9,11,12; 1]

- Collaboration between elementary and middle school
- Between subject areas
- Young teachers not seeing the whole picture
- 

41. There needs to be a better connection between Elementary and Middle school, when planning their curriculum. Concepts that students NEED to know when they enter Gr 7 is sometimes to just not up to standard.... [skipped positive]

a. i'll prefer a scope and sequence as two teachers, teaching the same concept, concentrate on different parts. That makes it a huge problem when writing exams or tests, since you constantly have to change the mark scheme if a teacher did not cover a particular part of the chosen concept. [7, 8.10; 2]

- collaboration between elementary and middle school

42. The philosophy of writing conceptual focus into the curriculum is great - again this could be established by an investigative approach (which is the route I have always looked to take without time to implement

anything broadly and formally - it should also not be taken for granted that all teachers clearly understand what constitutes good investigation).

a. **Insufficient allocation of resources** - development time, inadequate training (very rudimentary - even our visiting 'expert' had little for math (and 1 hr between Math and Science)). **It is a bit of a pretence that we can charge ahead to make something of quality with the basis we have - significantly more resource allocation should go to this if we are honestly expecting quality.** I would also note that I would not be willing to compromise a solid Math programme in pursuit of something flimsy without demonstrated benefit.

b. Again I believe the philosophy of the 'conceptual curriculum' is about how we teach, not what we teach. I will teach Mathematics the same way regardless of the prescribed curriculum. The beauty of mathematics is in the underlying mathematical ideas of structure and relationships which are present in every single mathematical experience (hence it is a nonsense of trying to divide up the curriculum by concept and conceptual lens at distinct times) - Every 'conceptual lens' can be used in every single lesson - it is contrived and limiting to try to divide up mathematics in this way. More important is that we address these somewhere - as most curricula would already try to do somewhere - of course we can increase the focus on it - again I think in Mathematics that should look like an investigative approach. This can be integrated without changing content/renaming units/making specific broad concepts the main focus at specific times (this will already happen!) Back to the question, I believe the goal of the conceptual curriculum can be achieved without even having something called a 'conceptual curriculum'. In Mathematics, our students must learn to use the same mathematics as students mostly anywhere - but we should strive to enable our students to gain and develop initiative insight,

and enjoyment of the subject - I have never taught somewhere that I have felt stifled to teach math in a limited fashion (excepting inescapability of external exam groups) - as our curriculum is prescribed (by ourselves) so in short I have no preference..[11-12; 3]

- Insufficient allocation of resources –
- development time,
- inadequate training (very rudimentary - even our visiting 'expert' had little for math (and 1 hr between Math and Science)).
- It is a bit of a pretense that we can charge ahead to make something of quality with the basis we have - significantly more resource allocation should go to this if we are honestly expecting
- I have never taught somewhere that I have felt stifled to teach math in a limited fashion (excepting inescapability of external exam groups) - as our curriculum is prescribed (by ourselves)
- 

43. Curriculum Framework, as it is much flexible in resources, timing, and different materials [7,9,10; 5] skipped both

•

44. - It teaches students the higher order thinking skills.

- a. We need more sessions on conceptual curriculum
  - b. Both are good. They fit students needs. [7,10,11,12; 4]
- Higher order thinking skills
  - More training

45. teaching the student high order thinking skills using critical thinking students take a more active part in class discussions

- a. More sessions are required for Islamic subject
  - b. Both are good, because they fit students needs [8,9,10; 1]
- Higher order thinking skills
- More training

46. It gives more opportunities for students to be critical thinkers. It gives teachers opportunities to think outside the box.

a. Teachers are not so well prepared for it yet, in spite of the amazing workshop we had last year but teachers still need more workshops and more time to implement the conceptual curriculum correctly in their classroom. The conceptual curriculum is convenient for some classes more than others. Like language A classes vs language B

b. Each one of them has it's positives and negatives, on the long run the conceptual curriculum will be a prescriptive one because it is so difficult to change units, scope and sequence. .... every year. Its good to have a constant frame work but adjustable units! Finding enough resources for some subjects is really difficult.  
[9-12; 7]

Critical thinkers

Questioning teacher proficiency

47. It is a very helpful guide for students and teachers (if it is used/implemented in class )

a. I think all departments should know in how other departments work/follow curriculum Also an standarization of units development Supervision by Currulum knowledgeable people/expertise

b. second option [ 10-12; 5]

helpful guide if implemented in class

all departments should know how other departments function

standardization and supervision



## **QUESTIONS 13,14,15 - THIRD CYCLE CODING**

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### **THIRD CYLCE CODING- KEY THEMES EMERGING TAKEN OUT AND TALLIED**

- Questioning Proficiency
- Questioning impact on student learning
- Questioning teacher consistency
- Flexible
- Allows for differentiation
- A bit vague
- Assurance when prescriptive
- Not for all subjects- artificially fitting
- Requiring inter-disciplinary planning
- Questioning proficiency
- “our own version”
- Few strengths- not mentioning what
- Too many variances
- Lack of clear leader
- Standard based
- Conceptually minded
- Scaffold to prepare for 7-10
- Lack of clarity
- Difficulty in getting training
- Varying levels of expertise
- Prepares students for the IB
- Only focused in preparing for the IB instead of a broad range of topics

- Allows teachers to relate material across time and region
- Too much time spent on writing curriculum
- Too abstract
- Not good with grade expectations
- Integrate several topics
- Does not prepare students for traditional exams like SAT
- More constructive in the long term
- No longer cookie cutter roles for teacher and student
- Assessments give students better change to succeed
- Too much choice at young age
- Encourages to continually be thinking
- Promotes students to think
- Constraining in that students aren't able to learn more about a variety of information
- Can be taken in any direction
- Questioning expertise
- Questioning understanding it versus practically applying it.
- Categorizing learning by concepts would make it inefficient
- Works well for English
- Assessment protocols not transparent enough
- Premise disagreeable
- Fairly well documents
- Have the tools for vertical and horizontal alignment
- Questioning proficiency
- Students don't relate to the themes
- Allows teachers to be pedagogical leaders
- Lot of freedom in terms of content
- Need for significant training
- fosters critical thinking
- Quality of learning is greater
- Questioning accountability

- Conceptual curriculum involves more time consuming learning activities
- Ability to focus on transferable skills
- Teacher do topics they find interesting that what is needed to be covered for the IB
- Questioning accountability
- Regular workshops/follow-up to retain motivation
- No strengths
- Only on paper
- Still unsure after 4 years
- Flexibility and adaptability
- Relevant and up to date material
- Time consuming and always work-in-progress
- Questioning consistency
- flexibility
- Questioning collaboration between departments
- Students become life long learners
- More training
- Higher order thinking skills
- More training
- Flexibility
- Lack of basic skill/objective assessments
- Able to design for our particular students
- Enables authentic assessment tasks
- Diagnose and design
- Holistic learning
- Allows scaffolding
- Gaps to be filled
- Students excel in 'big picture' ideas
- Weak in skills and facts
- Collaboration between elementary and middle school

- Between subject areas
- Young teachers not seeing the whole picture
- collaboration between elementary and middle school
- Insufficient allocation of resources –
- development time,
- inadequate training (very rudimentary - even our visiting 'expert' had little for maths (and 1 hr between Math and Science)).
- It is a bit of a pretense that we can charge ahead to make something of quality with the basis we have - significantly more resource allocation should go to this if we are honestly expecting
- I have never taught somewhere that I have felt stifled to teach math in a limited fashion (excepting inescapability of external exam groups) - as our curriculum is prescribed (by ourselves)
- Higher order thinking skills
- More training
- Higher order thinking skills
- More training
- Critical thinkers
- Questioning teacher proficiency
- helpful guide if implemented in class
- all departments should know how other departments function
- standardization and supervision

### **FINAL THEMES AND TALLIES – QUESTIONS 13,14 AND 15.**

- Questioning Proficiency:  $\text{+++}$  [5]
- Questioning Student Learning outcomes:  $||$  [3]
- Seeking Consistency /Clarity :  $\text{+++} \text{+++} ||$  [12]
- More Interdisciplinary:  $|$  [1]
- More Training:  $\text{++++}$  [7]
- Time Consuming:  $||||$  [4]
- Preparation for standardized exams:  $|$  [1]
- Practical application in the classroom:  $||$  [2]
- Accountability:  $||$  [3]
- Need for more Collaboration:  $||$  [2]

THEMES	TALLIES	NUMBERS
Seeking Consistency /Clarity	$\text{+++} \text{+++}   $	12
More Training	$\text{++++}$	7
Questioning Proficiency	$\text{+++}$	5
Time Consuming	$    $	4
Questioning Student Learning outcomes	$  $	3
Accountability	$  $	3
Need for more Collaboration:	$  $	2
Practical application in the classroom	$  $	2

## **Appendix 19: Coding Sheets for question 15**

### **QUESTION 15- FIRST CYCLE CODING**

Question 15: If you were given a choice to choose between teaching a prescriptive curriculum (where you are given the scope and sequence, the course material and the books/resources) and a curriculum framework such as the one in the current school which is more flexible what would you prefer? Why?

Coding Process: Highlight terms that indicate teacher preference as “prescriptive” ; “Flexible framework” or “both” (combination) and arriving at tallies for each of the codes.

1. I think a curriculum that gives a **good balance of both would be ideal**. As teachers we are sometimes unable to make the right choice of whether this concept or topic needs to be included/excluded so some sort of framework that articulates some non-negotiable would be very helpful, as in the PYP. The conceptual curriculum is quite broad in that everything is left to the teacher's choice. I may think I am doing a great job, someone else may come along after a year and think 'this teacher had no clue what she was doing' and change everything. How this will impact student learning is what we need to see then.

2. There are good things in both. Using a book is easier for the teacher (documents and exercises are provided) and reassures the students and their family. On the other hand, most teachers will add to **it just like for the conceptual one**. I have taught with both curriculum and don't feel one is really better than the other in the end despite the slightly bigger amount of work for the conceptual curriculum, at least when it comes to languages.

3. The first because it makes more sense. The second requires administration that understands that conceptual curriculum is NOT for every subject.
4. I don't mind working on the conceptual curriculum provided that it is more unified among departments as I mentioned in the previous question.
5. A true concept-based curriculum, as designed by Erickson, is both!
6. The latter. Already stated above.
7. I am pleased with the curriculum at GAIS. It allows for flexibility which is needed in an international school.
8. Prescriptive curriculum like the IB.
9. I have taught both ways and I enjoy the flexible of a concept curriculum, however, having too much freedom sometimes leaves gaps in students education. A prescriptive curriculum insures that students follow a strict program and leaves no gaps in their education.
10. Not sure.
11. Prescriptive with some flexibility.
12. It depends on the topic. In some cases prescriptive curriculum is better than conceptual curriculum
13. I think that this one is more constructive in the long-term.
14. I would rather have a scope and sequence. I enjoy having a program that fits the schools needs with it being revised on a continual basis. I think a mix of the two could be something that would be easier on the teachers so that there is ground work that they can spring board from.
15. Flexibility is always appreciated, as long as the longer-term picture is kept in view.
16. I think the ideal curriculum is a combination of the two, and it's impossible to adequately prepare students to do the DP at the 11th and 12th grade level without being somewhat prescriptive. I think the best course of action is to figure out what content needs to be covered and then teach it from a conceptual model.

17. I would much prefer one that is more flexible in allowing us to choose what we want to teach. It can become very monotonous and constraining when you are only allowed to work with a set amount of materials. Having the free range allows us to be creative and work with what we have and know to do.

18. I would prefer a scope and sequence that is already set out. This way you know that all the students are receiving the same education.

19. I prefer the more flexible option as it provides more ways that an idea can be covered. Attempting to adhere to scope/sequence can be limiting when the students express interest in something other than what is in the current curriculum.

20. I am not sure I agree with the premise - a scope and sequence need not be prescriptive. If I know I need to teach Romanticism, that still gives leeway as to what I cover and how. There are advantages and disadvantages to each.

21. I would prefer a prescriptive curriculum under the assumption that adequate feedback and consideration has been given to the course with changes being made to meet the needs of the students.

22. More flexible. We need to make it more flexible in order to build the bridge between PYP and IB, and take into account the overall strengths and weaknesses students have based on data and observations.

23. AT this point in time I would choose CC but when it was introduced I would have chosen something more prescriptive because I didn't feel support during the introduction and felt I didn't have the skill necessary to develop curriculum on my own having just graduated from teacher college. It was a lot of responsibility to place of young inexperienced teacher and i felt this was very unfair.

24. curriculum frame work.

25. Both should be adopted. School systems always wish to limit their options as though they can find a magic wand that can solve every issue.



Why not allow your teachers to utilize the model that fits the particular class?

26. I prefer a **prescriptive curriculum** in most cases. The IB is ultimately prescriptive (with conceptual underpinnings), and the system simply works.

27. **A flexible framework** - you have to be able to be given the room to adapt to the needs of the students.

28. A mixture, As stated **before having the scope and sequence and complexity of skills required mapped out by a ministry of education is a very helpful thing. It ensures that all students** are roughly on the same path. many students that transition in and out of GAIS have a hard time. That being said really enjoy the freedom to at it gives teachers and students in deciding where a topic or unit might go. This can also be achieved in national curriculums and the L.Os are becoming increasingly generic and able to be applied to multiple topics etc.

29. I prefer our conceptual curriculum, and choice in teaching, Although, sometimes i feel like in our department we are "re-creating the wheel" I love the idea of teaching through lenses, but for the **basics it would be nice to follow a structured** plan.

30. Both. Speaking solely on behalf of my **subject, a curriculum framework works once students have acquired enough language skills to tackle a conceptual curriculum. But until that happens, a prescriptive curriculum** sure would make new, incoming teachers' lives a lot easier.

31. Both approaches definitely have benefits and drawbacks. Therefore, **I think that a combination** of both would be ideal.

32. **Flexible.** I like having the ability to adapt to the classroom/students and even teacher interests. I don't believe English is a subject that lends itself to prescribed curriculum as there is no definitive right/wrong answer.

33. I don't think prescriptive curriculum is beneficial for all students. Especially the fact that we are an international and all learners come from

different backgrounds, flexibility is important. Teachers need to be culturally responsive.

34. Both are good to me. It is good to have enough resources and materials, and at same time to be flexible for change if needed

35. I prefer to use both depending on the topics.

36. The one created in the school is aided by our varied experiences with best practices in other schools, curriculums, and is designed for our particular students and their path. We are able to adjust as needed to cover a gap from the previous quarter or year - it allows for us to create a timetable for authentic tasks relevant for our students, and it allows us to "diagnose" areas for growth and design lessons accordingly. We don't create in a vacuum, we use resources from the internet, each other, USA curricula, the IB - we're not reinventing the wheel, but we're building a vehicle that our own students can operate.

37. Conceptual curriculum, as it allows for growth and development of the program. Scope and sequence would be too rigid, and does not allow for enough flexibility to differentiate.

38. I guess I would say I do like the freedom to choose as it allows you to really custom tailor lessons to each individual student. It's a lot more work, and often it feels as if things go missing in the overall picture. The one we have now is definitely more flexible, but sometimes I miss the comfort of using someone who has advanced degrees in curriculum design's work, as I'm sure they're better at it than I am.

39. When I first came to this school I would have definitely wanted a prescriptive curriculum. I appreciate the freedom and flexibility of our current curriculum but I sometimes wonder if there are not many gaps in the courses. How do we find out where the gaps are and how do we know that we are, in fact, meeting the needs of the students? I wonder how good our curriculum is. I have "pride" in it because we have all created it, but I also doubt how good it is because I know just how unqualified I am to write an official curriculum document.

40. **Prescriptive** - then we can measure our students and our standards with the rest of the students in the world that is taking that curriculum. It mean we can then spend more time in making our lessons more interesting and challenging and we can differentiate more with our upper and lower students. That also mean we will cover in depth how much is needed for each level and then from year to year we can improve our teachings and will be able to gauge must more how our students are doing. Even prescriptive curriculums give you enough degrees of freedom and you can still use the teaching methods you prefer. That will eliminate the problem where the PYP develop their own programme without knowing what students should know by the time they arrive in Gr 7. At this moment they just decide and just teach what they are comfortable with without finding out what we need to have the students understand and be able to know when arriving in Gr 7.

41. I'll **prefer a scope and sequence** as two teachers, teaching the same concept, concentrate on different parts. That makes it a huge problem when writing exams of tests, since you constantly have to change the mark scheme if a teacher did not cover a particular part of the chosen concept.

42. Again I believe the philosophy of the 'conceptual curriculum' is about how we teach, not what we teach. I will teach Mathematics the same way regardless of the prescribed curriculum. The beauty of mathematics is in the underlying mathematical ideas of structure and relationships which are present in every single mathematical experience (hence it is a nonsense of trying to divide up the curriculum by concept and conceptual lens at distinct times) - Every 'conceptual lens' can be used in every single lesson - it is contrived and limiting to try to divide up mathematics in this way. More important is that we address these somewhere - as most curricula would already try to do somewhere - of course we can increase the focus on it - again I think in Mathematics that should look like an investigative approach. This can be integrated without

changing content/renaming units/making specific broad concepts the main focus at specific times (this will already happen!) Back to the question, I believe the goal of the conceptual curriculum can be achieved without even having something called a 'conceptual curriculum'. In Mathematics, our students must learn to use the same mathematics as students mostly anywhere - but we should strive to enable our students to gain and develop initiative insight, and enjoyment of the subject - I have never taught somewhere that I have felt stifled to teach math in a limited fashion (excepting inescapability of external exam groups) - as our curriculum is prescribed (by ourselves) **so in short I have no preference..**

43. **Curriculum Framework**, as it is much flexible in resources, timing, and different materials

44. **Both are good. They fit students needs.**

45. **Both are good**, because they fit students needs

46. Each one of them has it's positives and negatives, on the long run the conceptual curriculum will be a prescriptive one because it is so difficult to change units, scope and sequence. .... every year. Its good to have a **constant frame work but adjustable** units! Finding enough resources for some subjects is really difficult.

47. **second option**

**Clearly Prescriptive – 8 teachers clearly preferred working with a prescriptive curriculum**

**Prescriptive Plus flexibility – 15 teachers preferred to work with a prescriptive curriculum but with the possibility to being flexible to choose their approach within the prescriptive curriculum**

**Just both- 6 teachers simply indicated they would like a “mix of both”**

Invalid- one person abstained and the other 3 responded did not provide a relevant answer to the question possibly because the question was incorrectly interpreted.

Flexible Framework- 14 teachers clearly preferred to work with a flexible framework as in the school and did not see the degree of freedom they exercised as an issue.

## QUESTION 15: SECOND CYCLE CODING

### Question 15- Fourth cycle coding- for positive/negative

1. I think a curriculum that gives a good balance of both would be ideal. As teachers we are sometimes unable to make the right choice of whether this concept or topic needs to be included/excluded so some sort of framework that articulates some non-negotiable would be very helpful, as in the PYP. *The conceptual curriculum is quite broad in that everything is left to the teacher's choice. I may think I am doing a great job, someone else may come along after a year and think 'this teacher had no clue what she was doing' and change everything. How this will impact student learning is what we need to see then.*[DISSATISFIED][BOTH]

2. There are good things in both. *Using a book is easier for the teacher (documents and exercises are provided) and reassures the students and their family.* On the other hand, most teachers will add to it just like for the conceptual one. I have taught with both curriculum and don't feel one is really better than the other in the end despite the slightly *bigger amount of work* for the conceptual

curriculum, at least when it comes to languages.[DISSATISFIED]  
[BOTH][ CAN DO IT EVEN WITH A PRESCRIBED BOOK]

3. The **first because** it makes more sense. The second requires administration that understands that ***conceptual curriculum is NOT for every subject.***[DISSATISFIED][PRESCRIPTIVE]

4. **I don't mind** working on the conceptual curriculum provided that it is more unified among departments as I mentioned in the previous question.[INVALID]

5. **A true concept**-based curriculum, as designed by Erickson, is both![BOTH]

6. **The latter.** Already stated above.[FRAMEWORK]

7. **I am pleased** with the curriculum at GAIS. It allows for flexibility which is needed in an international school.[SATISFIED][FRAMEWORK]

8. **Prescriptive curriculum** like the IB.[PRESCRIPTIVE]

9. I have taught both ways and I **enjoy the flexible of a concept curriculum, however, having too much freedom sometimes leaves gaps in students education.** **A prescriptive curriculum** insures that students follow a strict program and leaves no gaps in their education.[DISSATISFIED][PRESCRIPTIVE]

**10. Not sure.**[INVALID]

11. **Prescriptive with some flexibility.**[BOTH]

12. It depends on the topic. In some cases **prescriptive curriculum is better** than conceptual curriculum. [BOTH]

13. I think that this one **is more constructive** in the long-term.[SATISFIED][FRAMEWORK]

14. I would rather have a scope and sequence. I enjoy having a program that fits the schools needs with it being revised on a continual basis. I **think a mix of the** two could be something that would be easier on the teachers so that there is ground work that they can spring board from.[BOTH]

15. Flexibility is always appreciated, as long as the longer-term picture is kept in view.[FRAMEWORK]

16. I think the ideal curriculum is a combination of the two, and it's impossible to adequately prepare students to do the DP at the 11th and 12th grade level without being somewhat prescriptive. I think the best course of action is to figure out what content needs to be covered and then teach it from a conceptual model.[BOTH]

17. I would much prefer one that is more flexible in allowing us to choose what we want to teach. It can become very monotonous and constraining when you are only allowed to work with a set amount of materials. Having the free range allows us to be creative and work with what we have and know to do.[POSITIVE][FRAMEWORK]

18. I would prefer a scope and sequence that is already set out. This way you know that all the students are receiving the same education.[DISSATISFIED][PRESCRIPTIVE]

19. I prefer the more flexible option as it provides more ways that an idea can be covered. Attempting to adhere to scope/sequence can be limiting when the students express interest in something other than what is in the current curriculum.[POSITIVE][FRAMEWORK]

20. I am not sure I agree with the premise - a scope and sequence need not be prescriptive. If I know I need to teach Romanticism, that still gives leeway as to what I cover and how. There are advantages and disadvantages to each.[BOTH]

21. I would prefer a prescriptive curriculum under the assumption that adequate feedback and consideration has been given to the course with changes being made to meet the needs of the students.[PRESCRIPTIVE]

22. More flexible. We need to make it more flexible in order to build the bridge between PYP and IB, and take into account the overall strengths and weaknesses students have based on data and observations.[FRAMEWORK]

23. AT this point in time I would choose CC but when it was introduced I would have chosen something more prescriptive because I didn't feel support during the introduction and felt I didn't have the skill necessary to develop curriculum on my own having just graduated from teacher college. It was a lot of responsibility to place of young inexperienced teacher and I felt this was very unfair.[HOW MANY YEARS IN TEACHING CC?][FRAMEWORK]

24. curriculum frame work.[FRAMEWORK]

25. Both should be adopted. School systems always wish to limit their options as though they can find a magic wand that can solve every issue. Why not allow your teachers to utilize the model that fits the particular class?[BOTH]

26. I prefer a prescriptive curriculum in most cases. The IB is ultimately prescriptive (with conceptual underpinnings), and the system simply works.[PRESCRIPTIVE]

27. A flexible framework - you have to be able to be given the room to adapt to the needs of the students.[FRAMEWORK]

28. A mixture, As stated before having the scope and sequence and complexity of skills required mapped out by a ministry of education is a very helpful thing. It ensures that all students are roughly on the same path. *many students that transition in and out of GAIS have a hard time.* That being said really enjoy the freedom to at it gives teachers and students in deciding where a topic or unit might go. This can also be achieved in national curriculums and the L.Os are becoming increasingly generic and able to be applied to multiple topics etc.[BOTH]

29. I prefer our conceptual curriculum, and choice in teaching, Although, sometimes I feel like in our department we are "re-creating the wheel" I love the idea of teaching through lenses, but for the basics it would be nice to follow a structured plan.[BOTH]



30. Both. Speaking solely on behalf of my subject, a curriculum framework works once students have acquired enough language skills to tackle a conceptual curriculum. But until that happens, a **prescriptive curriculum sure would make new, incoming teachers' lives a lot easier.**[BOTH]

31. Both approaches definitely have benefits and drawbacks. Therefore, **I think that a combination** of both would be ideal.[BOTH]

32. **Flexible.** I like having the ability to adapt to the classroom/students and even teacher interests. I don't believe English is a subject that lends itself to prescribed curriculum as there is no definitive right/wrong answer.[FRAMEWORK]

33. I don't think prescriptive curriculum is beneficial for all students. Especially the fact that we are an international and all learners come from different backgrounds, **flexibility is** important. Teachers need to be culturally responsive.[FRAMEWORK]

34. **Both are good to me.** It is good to have enough resources and materials, and at same time to be flexible for change if needed. [BOTH]

35. **I prefer to use both** depending on the topics.[BOTH]

36. The one created in the school is aided by our varied experiences with best practices in other schools, curriculums, and is designed for our particular students and their path. We are able **to adjust as needed** to cover a gap from the previous quarter or year - it allows for us to **create a timetable for authentic tasks relevant for our students, and it allows us to "diagnose" areas for growth and design lessons accordingly.** We don't create in a vacuum, we use resources from the internet, each other, USA curricula, the IB - we're not reinventing the wheel, but we're building a vehicle that our own students can operate.[POSITIVE][FRAMEWORK]

37. **Conceptual curriculum,** as it allows **for growth and development of the program.** Scope and sequence would be too rigid, and does not allow for enough flexibility to differentiate.[POSITIVE][FRAMEWORK]

38. I guess I would say I do like the freedom to choose as it allows you to really custom tailor lessons to each individual student. It's a lot more work, and often it feels as if things go missing in the overall picture. The one we have now is definitely more flexible, but sometimes *I miss the comfort of using someone who has advanced degrees in curriculum design's work, as I'm sure they're better at it than I am.*[FRAMEWORK]

39. When I first came to this school I would have definitely wanted a prescriptive curriculum. I appreciate the freedom and flexibility of our current curriculum but I sometimes wonder if there are not many gaps in the courses. *How do we find out where the gaps are and how do we know that we are, in fact, meeting the needs of the students? I wonder how good our curriculum is. I have "pride" in it because we have all created it, but I also doubt how good it is because I know just how unqualified I am to write an official curriculum document.*[FRAMEWORK]

40. Prescriptive - *then we can measure our students and our standards with the rest of the students in the world that is taking that curriculum.* It mean we can then spend more time in making our lessons more interesting and challenging and we can differentiate more with our upper and lower students. That also mean we will cover in depth how much is needed for each level and then from year to year we can improve our teachings and will be able to gauge must more how our students are doing. Even prescriptive curriculums give you enough degrees of freedom and you can still use the teaching methods you prefer. That will eliminate the problem where the PYP develop their own programme without knowing what students should know by the time they arrive in Gr 7. At this moment they just decide and just teach what they are comfortable with without finding out what we need to have the students understand and be able to know when arriving in Gr 7.[PRESCRIPTIVE]

41. I'll prefer a scope and sequence as two teachers, teaching the same concept, concentrate on different parts. That makes it a huge problem when writing exams or tests, since you constantly have to change the mark scheme if a teacher did not cover a particular part of the chosen concept.[PRESCRIPTIVE]

42. Again I believe the philosophy of the 'conceptual curriculum' is about how we teach, not what we teach. I will teach Mathematics the same way regardless of the prescribed curriculum. The beauty of mathematics is in the underlying mathematical ideas of structure and relationships which are present in every single mathematical experience (hence it is a nonsense of trying to divide up the curriculum by concept and conceptual lens at distinct times) - Every 'conceptual lens' can be used in every single lesson - it is contrived and limiting to try to divide up mathematics in this way. More important is that we address these somewhere - as most curricula would already try to do somewhere - of course we can increase the focus on it - again I think in Mathematics that should look like an investigative approach. This can be integrated without changing content/renaming units/making specific broad concepts the main focus at specific times (this will already happen!) Back to the question, I believe the goal of the conceptual curriculum can be achieved without even having something called a 'conceptual curriculum'. In Mathematics, our students must learn to use the same mathematics as students mostly anywhere - but we should strive to enable our students to gain and develop initiative insight, and enjoyment of the subject - I have never taught somewhere that I have felt stifled to teach math in a limited fashion (excepting inescapability of external exam groups) - as our curriculum is prescribed (by ourselves) so in short I have no preference..[NO PREFERENCE]

43. Curriculum Framework, as it is much flexible in resources, timing, and different materials[FRAMEWORK]

44. Both are good. They fit students needs. [BOTH]

45. Both are good, because they fit students needs. [BOTH]

46. Each one of them has it's positives and negatives, on the long run the conceptual curriculum will be a prescriptive one because it is so difficult to change units, scope and sequence. .... every year. Its good to have a constant frame work but adjustable units! Finding enough resources for some subjects is really difficult. [BOTH]

47. second option. [FRAMEWORK]

Clearly Prescriptive – 8 teachers clearly preferred working with a prescriptive curriculum

Just both-18 teachers simply indicated they would like a “mix of both”

Flexible Framework- 18 teachers clearly preferred to work with a flexible framework as in the school and did not see the degree of freedom they exercised as an issue.

Invalid- one person abstained and the other 2 responded did not provide a relevant answer to the question possibly because the question was incorrectly interpreted. [3]

Clearly aligning towards a flexible framework or one that combines best of both. However, though teachers prefer a combination of both, the case for a structured plan be made available for teachers was a recurrent theme. While teachers appreciated the degree of freedom they enjoyed in such a broad framework, they questioned the impact on student learning and their proficiency in “doing the right thing” when having to exercise so much freedom.

## **Appendix 20: Timeline for the study**

<b>Timeline</b>	<b>Processes</b>
August 2011-September 2011	Brainstorming and discussing with professors at University of Bath my areas of interest in conducting my research inquiry
October 2011	Arriving upon the decision that I shall focus on curriculum in international schools as my “area” of research
October 2011-November 2012	Engaged in literature review phase 1 to examine existing literature and identify gaps to arrive at a possible area of research within curriculum in international schools
November 2012	Rough draft of a proposal and brainstorming done for a prospective research question.
January 2012	Deciding that the research inquiry will be a case study as the initial research question justified a case study method
January 2012	Identifying a prospective site for a case study on curriculum so as to gauge feasibility of study and whether topic is worthy of investigation and reporting the same to prospective supervisors
January 2012	Initial discussions and exchange of ideas with school personnel if a case study to be conducted would be viable and permissible
January 2012- February 2012	Engaged in phase 2 extensive literature review search, created a database of the various readings that will be used to develop and sharpen the research question.
February 2012	Document library created in segments to include : literature on international schools/education; IB documents and publications; curriculum literature; Bernstein’s framework.
February 2012-March 2012	Focused reading on Bernstein’s literature to seek understanding of the complex ideas and to gauge whether I will be capable of using the same as a theoretical framework

March 2012	Brainstorming and developing a proposal on the lines of intended research inquiry including Bernstein's framework as I found this a very powerful framework to analyze curriculum though skeptic about its complexity
4 <sup>th</sup> April 2012	Sending an initial proposal of my thoughts and brainstorming to supervisors identified
April- May 2012	e-mail communication on sharpening research questions that will guide my inquiry
May 2012	Contacting school personnel for initial discussions to clarify the decisions of the school to not adopt the IB MYP
June 2012	Research question, proposal and possible road map submitted for review
1 <sup>st</sup> August 2012	Ethical Implication form and updated proposal submitted
28 <sup>th</sup>	Draft chapters of Introduction, Road map and Literature review submitted
24 <sup>th</sup>	Formal proposal sent to school authorities seeking permission to access school documents for research
November 2012	List of school documents to be accessed created and document library created on hard drive
28 <sup>th</sup>	Next draft submitted incorporating recommended changes and outline of research design submitted
November- December 2012	Extensive reading/analyzing of school curriculum documents and writing up relevant sections in regards to the curriculum of the school in study and identifying possible areas that need to be investigated via interviews and questionnaires
27 <sup>th</sup>	Clarification on sharpening/tweaking research question sought from supervisors and further guidance on gaps in literature
February 2013	At a stage that necessitated engaging in data collection to be able to progress in writing
February 2013	Created e-mail drafts and initial interview questions for "Why not the MYP?"

13 <sup>th</sup>	Next draft submitted with more focused Literature review, and Methodology chapters and the same approved
7 <sup>th</sup> April 2013	Send first draft of teacher questionnaire for approval to supervisors
April 2013	e-mail conversation with former Director of school on why the school did not choose the IB MYP
April 2013	Interview with current school Principal and 2 teachers (who continued with the school since 2006) on why the school choose not to adopt the IB MYP
16 <sup>th</sup>	Feedback received from supervisors approving of the same with some recommendations and suggested modifications
20 <sup>th</sup>	Piloting of Questionnaire
April 21	Further interview with curriculum leaders and 3 teachers to sharpen survey questions
April 29	Re-drafting questionnaire and getting ready for distribution
May 5	Launch of web-based questionnaire
May 6	Preparation of start list for coding data; brainstorming and getting ready for organizing data to enable analysis and interpretation.
May 20 <sup>th</sup>	Teacher survey closed and data collected
May 21	Coding and data reduction
July 2013	Writing up early drafts of Results chapters to identify major emerging themes of study and refining Methodology chapter
July 2013-September 2013	Writing up data collection, and analysis chapters
September 2013	First draft submission
Nov. 2013- February 2014	Revising first draft and second draft submission
April 2014-December 2014	Revising second draft completing final draft

## **Appendix 21: The Three IB Program Continuum**

IB Learner Profile		IB Mission Statement	
	PYP	MYP	DP
Nature	Framework  Inclusive	Framework  Inclusive	Prescribed curriculum Exam oriented
Structure	Transdisciplinary units of inquiry	Organized around disciplines with interdisciplinary areas of	Organized around disciplines with theory
How the programme is assessed	Internal assessment of all aspects of a student's learning	Internal assessment based on subject- specific criteria; schools	External moderation of internally assessed work and external
Learning to Learn	Transdisciplinary concepts and skills	Approaches to learning	Theory of knowledge
Learning through	Action	Community and service	Creativity, action, service
Language Learning	Support for mother- tongue development  School's additional language from age 7	Support for mother- tongue/ best language development  Student's additional language	Support for mother- tongue development: school supported, self-taught language
Culmination of learning	Exhibition	Personal project	Extended essay



## **Appendix 21: Program Continuum at GAIS**

IB Mission Statement	GAIS Mission Statement
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IB PYP	GAIS Conceptual Curriculum	IB DP
Broad curriculum Framework	Broad curriculum Framework	Prescribed curriculum
Inclusive	Aimed at preparing students for the IB DP	Aimed at preparing students for higher
Transdisciplinary units of inquiry	Disciplinary structure with emphasis on teaching for conceptual understanding- but no inter-disciplinary connections between subjects	Organized around disciplines with theory of knowledge connecting the disciplines
Internal assessment of all aspects of a student's learning	Internal assessment based on subject- specific criteria; no option for external moderation	External moderation of internally assessed work and external examinations
Transdisciplinary concepts and skills	No specific emphasis on trans/ inter-disciplinary except a few sporadic attempts	Theory of knowledge
Action	Community and service, Experiential Learning, Individual Investigation	Creativity, action, service
Support for mother-tongue development	Support for mother- tongue/best language development	Support for mother-tongue development:
School's additional language from age 7	Student's additional language (language B)	school supported, self-taught language A1 courses
PYP Exhibition	Individual Investigation as a Grade 10 end of year project but not comparable to EE or to PYP exhibition in scope, magnitude or philosophy.	Extended essay(EE)

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